

Southeast Polk  
Community School District

Math Curriculum  
Grade 8

*McDougal Littell Textbook Series*

*Updated June 2011*

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# I. Iowa Core

# Iowa CORE



Mathematics



November 17, 2010

# Mathematics | Grade 8

In Grade 8, instructional time should focus on three critical areas: (1) formulating and reasoning about expressions and equations, including modeling an association in bivariate data with a linear equation, and solving linear equations and systems of linear equations; (2) grasping the concept of a function and using functions to describe quantitative relationships; (3) analyzing two- and three-dimensional space and figures using distance, angle, similarity, and congruence, and understanding and applying the Pythagorean Theorem.

(1) Students use linear equations and systems of linear equations to represent, analyze, and solve a variety of problems. Students recognize equations for proportions ( $y/x = m$  or  $y = mx$ ) as special linear equations ( $y = mx + b$ ), understanding that the constant of proportionality ( $m$ ) is the slope, and the graphs are lines through the origin. They understand that the slope ( $m$ ) of a line is a constant rate of change, so that if the input or x-coordinate changes by an amount  $A$ , the output or y-coordinate changes by the amount  $m \cdot A$ . Students also use a linear equation to describe the association between two quantities in bivariate data (such as arm span vs. height for students in a classroom). At this grade, fitting the model, and assessing its fit to the data are done informally. Interpreting the model in the context of the data requires students to express a relationship between the two quantities in question and to interpret components of the relationship (such as slope and y-intercept) in terms of the situation.

Students strategically choose and efficiently implement procedures to solve linear equations in one variable, understanding that when they use the properties of equality and the concept of logical equivalence, they maintain the solutions of the original equation. Students solve systems of two linear equations in two variables and relate the systems to pairs of lines in the plane; these intersect, are parallel, or are the same line. Students use linear equations, systems of linear equations, linear functions, and their understanding of slope of a line to analyze situations and solve problems.

(2) Students grasp the concept of a function as a rule that assigns to each input exactly one output. They understand that functions describe situations where one quantity determines another. They can translate among representations and partial representations of functions (noting that tabular and graphical representations may be partial representations), and they describe how aspects of the function are reflected in the different representations.

(3) Students use ideas about distance and angles, how they behave under translations, rotations, reflections, and dilations, and ideas about congruence and similarity to describe and analyze two-dimensional figures and to solve problems. Students show that the sum of the angles in a triangle is the angle formed by a straight line, and that various configurations of lines give rise to similar triangles because of the angles created when a transversal cuts parallel lines. Students understand the statement of the Pythagorean Theorem and its converse, and can explain why the Pythagorean Theorem holds, for example, by decomposing a square in two different ways. They apply the Pythagorean Theorem to find distances between points on the coordinate plane, to find lengths, and to analyze polygons. Students complete their work on volume by solving problems involving cones, cylinders, and spheres.

# Grade 8 Overview

## The Number System

- Know that there are numbers that are not rational, and approximate them by rational numbers.

## Expressions and Equations

- Work with radicals and integer exponents.
- Understand the connections between proportional relationships, lines, and linear equations.
- Analyze and solve linear equations and pairs of simultaneous linear equations.

## Functions

- Define, evaluate, and compare functions.
- Use functions to model relationships between quantities.

## Geometry

- Understand congruence and similarity using physical models, transparencies, or geometry software.
- Understand and apply the Pythagorean Theorem.
- Solve real-world and mathematical problems involving volume of cylinders, cones and spheres.

## Statistics and Probability

- Investigate patterns of association in bivariate data.

## Mathematical Practices

1. Make sense of problems and persevere in solving them.
2. Reason abstractly and quantitatively.
3. Construct viable arguments and critique the reasoning of others.
4. Model with mathematics.
5. Use appropriate tools strategically.
6. Attend to precision.
7. Look for and make use of structure.
8. Look for and express regularity in repeated reasoning.

**The Number System****8.NS**

**Know that there are numbers that are not rational, and approximate them by rational numbers.**

1. Know that numbers that are not rational are called irrational. Understand informally that every number has a decimal expansion; for rational numbers show that the decimal expansion repeats eventually, and convert a decimal expansion which repeats eventually into a rational number.
2. Use rational approximations of irrational numbers to compare the size of irrational numbers, locate them approximately on a number line diagram, and estimate the value of expressions (e.g.,  $\pi^2$ ). *For example, by truncating the decimal expansion of  $\sqrt{2}$ , show that  $\sqrt{2}$  is between 1 and 2, then between 1.4 and 1.5, and explain how to continue on to get better approximations.*

**Expressions and Equations****8.EE**

**Work with radicals and integer exponents.**

1. Know and apply the properties of integer exponents to generate equivalent numerical expressions. *For example,  $3^2 \times 3^{-5} = 3^{-3} = 1/3^3 = 1/27$ .*
2. Use square root and cube root symbols to represent solutions to equations of the form  $x^2 = p$  and  $x^3 = p$ , where  $p$  is a positive rational number. Evaluate square roots of small perfect squares and cube roots of small perfect cubes. Know that  $\sqrt{2}$  is irrational.
3. Use numbers expressed in the form of a single digit times an integer power of 10 to estimate very large or very small quantities, and to express how many times as much one is than the other. *For example, estimate the population of the United States as  $3 \times 10^8$  and the population of the world as  $7 \times 10^9$ , and determine that the world population is more than 20 times larger.*
4. Perform operations with numbers expressed in scientific notation, including problems where both decimal and scientific notation are used. Use scientific notation and choose units of appropriate size for measurements of very large or very small quantities (e.g., use millimeters per year for seafloor spreading). Interpret scientific notation that has been generated by technology.

**Understand the connections between proportional relationships, lines, and linear equations.**

5. Graph proportional relationships, interpreting the unit rate as the slope of the graph. Compare two different proportional relationships represented in different ways. *For example, compare a distance-time graph to a distance-time equation to determine which of two moving objects has greater speed.*
6. Use similar triangles to explain why the slope  $m$  is the same between any two distinct points on a non-vertical line in the coordinate plane; derive the equation  $y = mx$  for a line through the origin and the equation  $y = mx + b$  for a line intercepting the vertical axis at  $b$ .

**Analyze and solve linear equations and pairs of simultaneous linear equations.**

7. Solve linear equations in one variable.
  - a. Give examples of linear equations in one variable with one solution, infinitely many solutions, or no solutions. Show which of these possibilities is the case by successively transforming the given equation into simpler forms, until an equivalent equation of the form  $x = a$ ,  $a = a$ , or  $a = b$  results (where  $a$  and  $b$  are different numbers).
  - b. Solve linear equations with rational number coefficients, including equations whose solutions require expanding expressions using the distributive property and collecting like terms.

8. Analyze and solve pairs of simultaneous linear equations.
  - a. Understand that solutions to a system of two linear equations in two variables correspond to points of intersection of their graphs, because points of intersection satisfy both equations simultaneously.
  - b. Solve systems of two linear equations in two variables algebraically, and estimate solutions by graphing the equations. Solve simple cases by inspection. *For example,  $3x + 2y = 5$  and  $3x + 2y = 6$  have no solution because  $3x + 2y$  cannot simultaneously be 5 and 6.*
  - c. Solve real-world and mathematical problems leading to two linear equations in two variables. *For example, given coordinates for two pairs of points, determine whether the line through the first pair of points intersects the line through the second pair.*

## Functions

8.F

### Define, evaluate, and compare functions.

1. Understand that a function is a rule that assigns to each input exactly one output. The graph of a function is the set of ordered pairs consisting of an input and the corresponding output.<sup>1</sup>
2. Compare properties of two functions each represented in a different way (algebraically, graphically, numerically in tables, or by verbal descriptions). *For example, given a linear function represented by a table of values and a linear function represented by an algebraic expression, determine which function has the greater rate of change.*
3. Interpret the equation  $y = mx + b$  as defining a linear function, whose graph is a straight line; give examples of functions that are not linear. *For example, the function  $A = s^2$  giving the area of a square as a function of its side length is not linear because its graph contains the points (1,1), (2,4) and (3,9), which are not on a straight line.*

### Use functions to model relationships between quantities.

4. Construct a function to model a linear relationship between two quantities. Determine the rate of change and initial value of the function from a description of a relationship or from two  $(x, y)$  values, including reading these from a table or from a graph. Interpret the rate of change and initial value of a linear function in terms of the situation it models, and in terms of its graph or a table of values.
5. Describe qualitatively the functional relationship between two quantities by analyzing a graph (e.g., where the function is increasing or decreasing, linear or nonlinear). Sketch a graph that exhibits the qualitative features of a function that has been described verbally.

## Geometry

8.G

### Understand congruence and similarity using physical models, transparencies, or geometry software.

1. Verify experimentally the properties of rotations, reflections, and translations:
  - a. Lines are taken to lines, and line segments to line segments of the same length.
  - b. Angles are taken to angles of the same measure.
  - c. Parallel lines are taken to parallel lines.
2. Understand that a two-dimensional figure is congruent to another if the second can be obtained from the first by a sequence of rotations, reflections, and translations; given two congruent figures, describe a sequence that exhibits the congruence between them.

<sup>1</sup> Function notation is not required in Grade 8.



3. Describe the effect of dilations, translations, rotations, and reflections on two-dimensional figures using coordinates.
4. Understand that a two-dimensional figure is similar to another if the second can be obtained from the first by a sequence of rotations, reflections, translations, and dilations; given two similar two-dimensional figures, describe a sequence that exhibits the similarity between them.
5. Use informal arguments to establish facts about the angle sum and exterior angle of triangles, about the angles created when parallel lines are cut by a transversal, and the angle-angle criterion for similarity of triangles. *For example, arrange three copies of the same triangle so that the sum of the three angles appears to form a line, and give an argument in terms of transversals why this is so.*

#### **Understand and apply the Pythagorean Theorem.**

6. Explain a proof of the Pythagorean Theorem and its converse.
7. Apply the Pythagorean Theorem to determine unknown side lengths in right triangles in real-world and mathematical problems in two and three dimensions.
8. Apply the Pythagorean Theorem to find the distance between two points in a coordinate system.

#### **Solve real-world and mathematical problems involving volume of cylinders, cones, and spheres.**

9. Know the formulas for the volumes of cones, cylinders, and spheres and use them to solve real-world and mathematical problems.

### **Statistics and Probability**

**8.SP**

#### **Investigate patterns of association in bivariate data.**

1. Construct and interpret scatter plots for bivariate measurement data to investigate patterns of association between two quantities. Describe patterns such as clustering, outliers, positive or negative association, linear association, and nonlinear association.
2. Know that straight lines are widely used to model relationships between two quantitative variables. For scatter plots that suggest a linear association, informally fit a straight line, and informally assess the model fit by judging the closeness of the data points to the line.
3. Use the equation of a linear model to solve problems in the context of bivariate measurement data, interpreting the slope and intercept. *For example, in a linear model for a biology experiment, interpret a slope of 1.5 cm/hr as meaning that an additional hour of sunlight each day is associated with an additional 1.5 cm in mature plant height.*
4. Understand that patterns of association can also be seen in bivariate categorical data by displaying frequencies and relative frequencies in a two-way table. Construct and interpret a two-way table summarizing data on two categorical variables collected from the same subjects. Use relative frequencies calculated for rows or columns to describe possible association between the two variables. *For example, collect data from students in your class on whether or not they have a curfew on school nights and whether or not they have assigned chores at home. Is there evidence that those who have a curfew also tend to have chores?*

## II. Best Practices List for the Math Classroom

## Components of Effective Mathematics Instruction (K-8)

What I should see in a mathematics classroom:

\_\_\_\_\_ Mental math activities (5 min. then explain thinking) DAILY

\_\_\_\_\_ Daily math review (5 min. quickly at the start of class) 2-5 times per week

\_\_\_\_\_ Concept previews (skill based; intro to the curriculum)

\_\_\_\_\_ Concept probes (1 problem/concept) every 2-3 days

\_\_\_\_\_ Concept reviews (use previews again after teaching the skill)

\_\_\_\_\_ Problem solving tasks - begin and end every unit

\_\_\_\_\_ Multiple problem solving strategies encouraged

\_\_\_\_\_ Students interacting via whole group, small group, and/or pairs (students communicating)

\_\_\_\_\_ Good questions - clarifying, redirecting, summarizing, extending, reflecting (students communicating)

\_\_\_\_\_ Students sharing solutions (students communicating)

\_\_\_\_\_ Students justifying answers - orally and/or in writing (students communicating)

\_\_\_\_\_ Active participation by all students (tracking - move toward heterogeneous grouping; peer help)

\_\_\_\_\_ High expectations communicated (increase time spent on math; can be done any time during the day)

\_\_\_\_\_ Assessment incorporated throughout the lesson (white boards, questioning, show answer on hands)

\_\_\_\_\_ Appropriate mathematics terminology utilized

\_\_\_\_\_ Manipulatives present and used by students/teacher

\_\_\_\_\_ Technology present and used by students/teacher

\_\_\_\_\_ Displays of students' work

\_\_\_\_\_ Concept wall (reference on wall for kids with disabilities)

\_\_\_\_\_ Exemplars - Problem solving

\_\_\_\_\_ Thinking with numbers - assessing basic facts

\_\_\_\_\_ Estimating - emphasize as much as possible

\_\_\_\_\_ No touch points - providing manipulatives that can't be taken away; use calculator instead

*As provided by Larry Osthus*

### III. Instructional Plans & Assessments

**Grade 8 McDougal Littell Math (Pre-Algebra)**

<i>Pacing Guide</i>		<i>Instructional Plans</i>		<i>Common Core</i>
<i>Week</i>		<i>Chapter</i>	<i>Sections</i>	<i>Standards</i>
1	Factors, Fractions, and Exponents	4	1,2	EE.1,3,4
2		4	3,4	
3		4	5,6	
4		4	7	
5	Rational Numbers and Equations	5	1,2	NS.2
6		5	3,4	
7		5	5,6	
8		5	7	
9	Ratio, Proportion, and Probability	6	1,2	G.1,2
10		6	3,4	
11		6	5,6	
12		6	Scale Drawings	<i>End 1st Tri</i>
13	Linear Functions	8	1,2,3	EE.5-8, F.1-5, SP.1-4
14		8	4,5	
15		8	6,8	
16		8		
17	Real Numbers and Right Triangles	9	1,2	EE.2, G.5-8, NS.1,2
18		9	3,4	
19		9	5,6	
20		9		
21	Angle Relationships and Transformations	13	1,2,3	G.1-5
22		13	4,5,6	
23	Preview/Review Week	13	7	
24	ITBS Testing			
25	Measurement, Area, Volume	10	1,2	G.9 <i>End 2nd Tri</i>
26		10	3,4	
27		10	5,6	
28		10	7,8	
29	Data Analysis & Probability	11	1,2	SP.1
30		11	3,4	
31		11	5,6	
32		11	7,8	
33		11	9	
34	Polynomials and Nonlinear Functions	12	1,2	F.3,5
35		12	3,4	
36		12	5,6	
37		12	7,8	
38				<i>End 3rd Tri</i>

*Daily Review: Include Percents*

*Weekly Review: Linear Equations*

*Algebraically, Graphs, Tables, Words*

*Revised 8/3/11*

Chapter 4 Test  
(8<sup>th</sup> Grade) 35 pts.

Name \_\_\_\_\_  
Class Period \_\_\_\_\_

Find the product or quotient. Write your answer using only positive exponents (2 points each).

1. \_\_\_\_\_  $4 \cdot 4^3$

6. \_\_\_\_\_  $6x^2 \cdot 6x^{-4}$

2. \_\_\_\_\_  $12^4 \cdot 12^6$

7. \_\_\_\_\_  $z^0 \cdot z^{-10}$

3. \_\_\_\_\_  $\frac{5^9}{5^5}$

8. \_\_\_\_\_  $\frac{4^{-3}}{4^6}$

4. \_\_\_\_\_  $\frac{11^3}{11}$

9. \_\_\_\_\_  $\frac{7^5}{7^{-2}}$

5. \_\_\_\_\_  $2^8 \cdot 2^{-7}$

10. \_\_\_\_\_  $\frac{3m^{-7}}{m^{-4}}$

Write each using a negative exponent, a positive exponent, and no exponent. (1 pt.)

11.	$3^{-3}$		$1/27$
12.	$2^{-5}$	$1/2^5$	
13.		$4^2$	

14.

15. Write the expression without using a fraction bar (1 point each).

\_\_\_\_\_  $\frac{1}{11}$

\_\_\_\_\_  $\frac{3}{c}$

\_\_\_\_\_  $\frac{2a^3}{b^2}$

**Chapter 4 Test**  
(8<sup>th</sup> Grade) p. 2

Write the number in scientific notation (2 points each).

16. \_\_\_\_\_ 15,600,000

17. \_\_\_\_\_ 0.00000526

Write the number in standard form (1 point each).

18. \_\_\_\_\_  $3.41 \times 10^7$

19. \_\_\_\_\_  $4.05 \times 10^{-4}$

20. \_\_\_\_\_ The most distant photograph of Earth was taken by the spacecraft Voyager 1 on February 4, 1990. Its camera took pictures of Earth from a distance of 6,500,000,000 kilometers. Write the distance in scientific notation. (2 points)

Extra Credit (3 points):

The sun has a diameter of  $1.39 \times 10^6$  kilometers. The diameter of Earth is  $1.28 \times 10^4$  kilometers. How many times larger is the sun's diameter than the Earth's diameter? Give your answer in scientific notation.

**Chapter 5 Test**  
**(8<sup>th</sup> Grade) 50 points**

Name \_\_\_\_\_  
Class Period \_\_\_\_\_

1. Three fifths of the students wore short sleeved shirts on Monday. Use long division to demonstrate how to write this as a decimal. (*Show work - 2 pts.*)
  
  
  
  
  
  
  
  
  
  
2. Mr. Smyth's class ordered 6 pizzas. The class ate 5 and 5/8 pizzas. What is this as a decimal? (*Show work - 2 pts.*)
  
  
  
  
  
  
  
  
  
  
3. What is a rational number? (*1 pt.*)
  
  
  
  
  
  
  
  
  
  
4. When you convert a rational number to a decimal using long division, what are the two indicators when to stop dividing? (*2 pts.*)
  
  
  
  
  
  
  
  
  
  
5. You saw 0.55 meters of rope on the ground. What is this as a fraction? (*1 pt.*)
  
  
  
  
  
  
  
  
  
  
6. The toddler lost 3.012 pounds. (-3.012) What is this as a fraction? (*1 pt.*)
  
  
  
  
  
  
  
  
  
  
7. You cut 1/6 feet of ribbon and 5/6 feet of ribbon. How much ribbon did you cut in all? (*1 pt.*)

*Find the sum or difference. (2 pts.)*

8.  $\frac{7}{15} - \frac{13}{15}$  \_\_\_\_\_

9.  $10\frac{7}{16} - 2\frac{3}{16}$  \_\_\_\_\_



**Chapter 5 Test**  
(8<sup>th</sup> Grade) pg. 2

*Simplify the expression. Show work! (2 pts.)*

10. \_\_\_\_\_  $\frac{-3n}{19} - \frac{4n}{19}$

11. \_\_\_\_\_  $\frac{26}{15n} + \left(-\frac{8}{15n}\right)$

*Simplify the sum or difference. Show work! (3 pts.)*

12. \_\_\_\_\_  $\frac{5}{8} - \frac{3}{4}$

13. \_\_\_\_\_  $-6\frac{2}{3} - 4\frac{3}{5}$

*Evaluate the expression:  $y - x$  when  $x = \frac{-3}{8}$  and  $y = \frac{5}{12}$ . Show work! (2 pts.)*

14. \_\_\_\_\_

15. You walk every day as part of your exercise regimen. Yesterday, you walked  $\frac{3}{4}$  of a mile, and today you walked  $1\frac{1}{2}$  miles. What is the total number of miles you walked both days? *Show work! (2 pts.)*

\_\_\_\_\_

*Find the product or quotient. Show work! (3 pts.)*

16. \_\_\_\_\_  $-\frac{4}{5} \cdot \frac{3}{4}$

17. \_\_\_\_\_  $1\frac{1}{2} \cdot 5\frac{3}{5}$

18. \_\_\_\_\_  $-\frac{13}{16} \div \left(-\frac{7}{24}\right)$

19. \_\_\_\_\_ Our rain barrel has a leak. It leaks  $\frac{2}{3}$  inches of water each day. If it currently holds  $6\frac{8}{15}$  inches of water, in how many days will it be empty?

**Chapter 5 Test**  
(8<sup>th</sup> Grade) pg. 3

*Solve the equation. Show work! (2 pts.)*

20. \_\_\_\_\_  $-\frac{3}{7}c = -6$

21. \_\_\_\_\_  $\frac{3}{4}w = -\frac{1}{2}$

*Solve the equation or inequality. Show work! (3 pts.)*

22. \_\_\_\_\_  $\frac{1}{2}t + \frac{5}{12} = \frac{5}{6}$

23. \_\_\_\_\_  $\frac{2}{5}k - \frac{4}{15} \geq -\frac{2}{3}$

**Chapter 6 Test**  
(8<sup>th</sup> Grade) **25 points**  
Sections 1-6

Name \_\_\_\_\_  
Class Period \_\_\_\_\_

*Please show work. (2 pts.)*

1. \_\_\_\_\_ Cecilia typed 216 words in 3 minutes. Calculate the unit rate to determine how many words she can type in one minute.
  
2. \_\_\_\_\_ The football team had 24 total wins in 4 seasons during regular season play. Calculate the unit rate of wins per season.
  
3. \_\_\_\_\_ If a person walks  $\frac{1}{2}$  a mile every  $\frac{1}{4}$  of an hour, calculate the unit rate for miles per hour.
  
4. \_\_\_\_\_ If a rocket travels 30 miles per minute, how far can it travel in an hour?

*For each of the following set up a proportion, then solve. (3 pts.)*

5. At her daughter's birthday party last year, Susan ordered 45 cupcakes for 27 guests. Write and solve a proportion to find the number of guests expected if she is only ordering 15 cupcakes this year.

\_\_\_\_\_ = \_\_\_\_\_

6. You know that 4 pizzas are enough to feed 8 people. Write and solve a proportion to find the number of pizzas that will feed 40 people.

\_\_\_\_\_ = \_\_\_\_\_

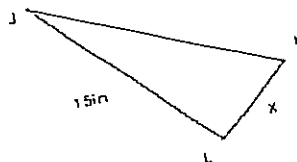
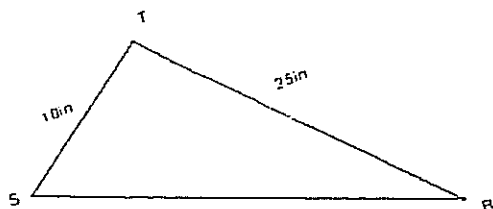
7. You are reading a book. It took you 4 days to read the first 144 pages. If you continue to read at the same rate each day, how many days will it take you to read the remaining 504 pages?

\_\_\_\_\_ = \_\_\_\_\_

**Chapter 6 Test**  
(8<sup>th</sup> Grade) pg. 2

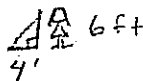
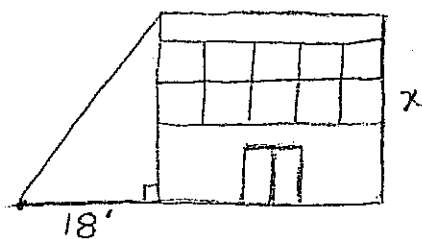
8. Given  $\triangle JKL \sim \triangle RST$ , find KL (3 pts.)

\_\_\_\_\_ = \_\_\_\_\_



9. A firefighter needs to get to the top of a building, but doesn't know which ladder to use. The building casts a shadow 18 feet long. A woman standing near the building is 6 feet tall and casts a shadow 4 feet long. How tall is the building? (3 pts.)

\_\_\_\_\_ = \_\_\_\_\_



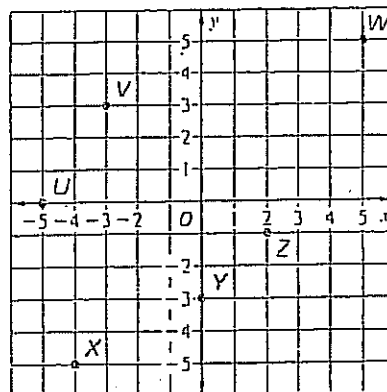
10. Explain the meanings of "congruent" and "similar." You may use illustrations to clarify your explanations. (2 pts.)

**Chapter 8 Test (Part I)**  
 (8<sup>th</sup> Grade) **50 points**  
 I=13 pts. II=37 pts.

Name \_\_\_\_\_  
 Class Period \_\_\_\_\_

1. What point is at  $(-3, 3)$ ? \_\_\_\_\_ (1)

2. Give the ordered pair for Y \_\_\_\_\_ (1)



3. Identify domain and range of the relation.  
 Then tell if it is a function.

$(-2, 4)$   $(-1, 2)$   $(0, 0)$   $(1, 2)$

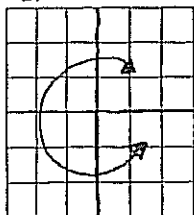
Domain: \_\_\_\_\_ (1)

Range: \_\_\_\_\_ (1)

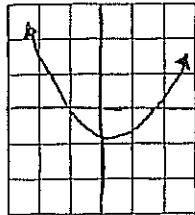
Is it a function? Y/N (1)

4. Which graph is a function (use Vertical Line Test) (1)

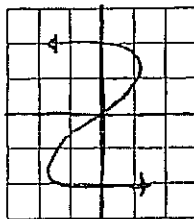
a.



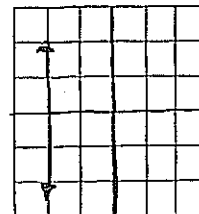
b.



c.



d.

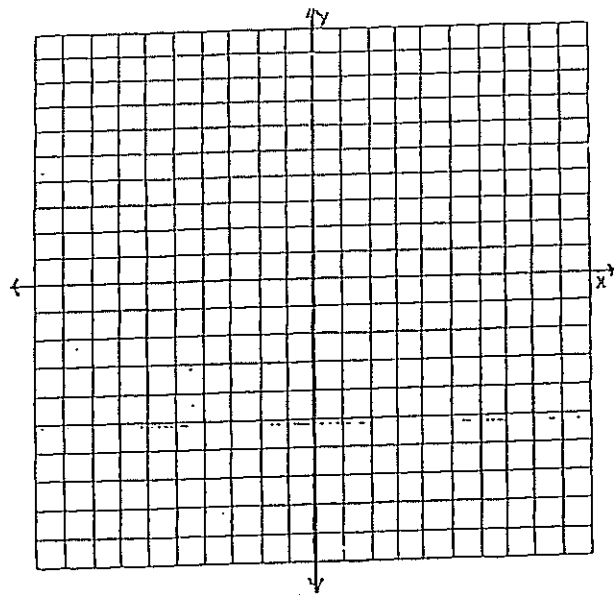


**Chapter 8 Test (Part I)**  
(8<sup>th</sup> Grade) pg. 2

Graph using table (3)

5.  $y = -3x + 6$

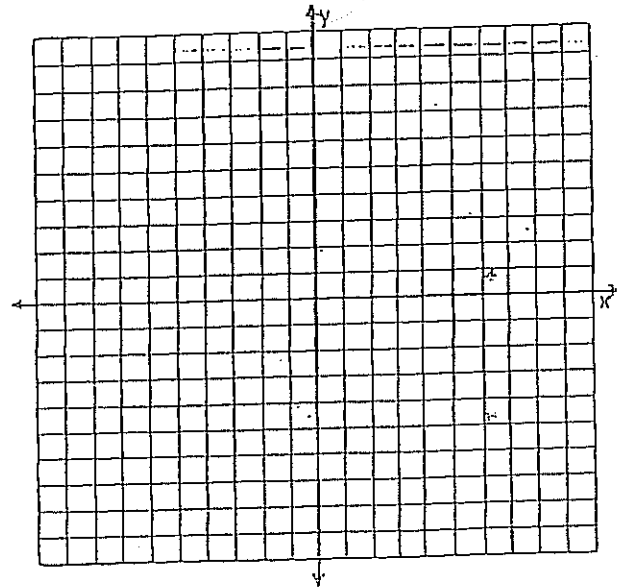
X	Y
-1	
0	
1	



Graph using intercepts (3)

6.  $3x + 8y = 24$

x-int = \_\_\_\_\_ y-int = \_\_\_\_\_

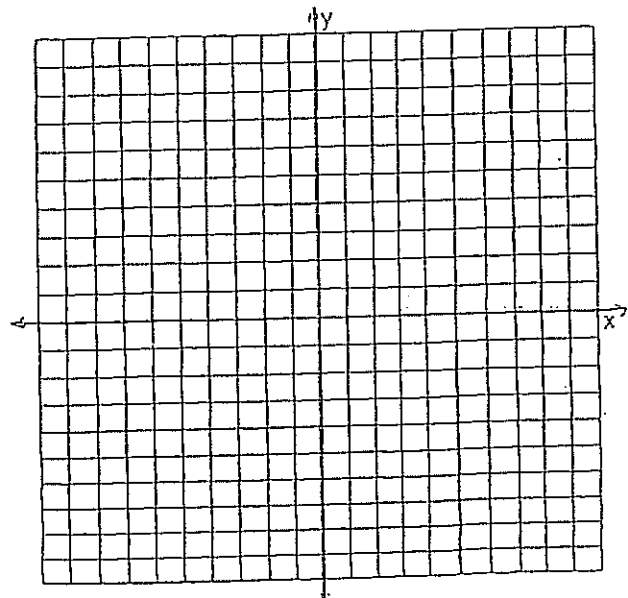


Graph using slope-intercept form (3)

7.  $y = \frac{3}{4}x - 3$

m =

b =



**Chapter 8 Test (Part II)**  
 (8<sup>th</sup> Grade) pg. 3

Name \_\_\_\_\_  
 Class Period \_\_\_\_\_

8. Using the two sets of data, calculate the rate of change ( $m$ ) for each. Which unit rate is greater, the equation or the table? Explain. (3 pts.)

*Explain*

$$y = 4x - 5$$

X	Y
0	3
1	6
2	9

$m =$  \_\_\_\_\_  $m =$  \_\_\_\_\_

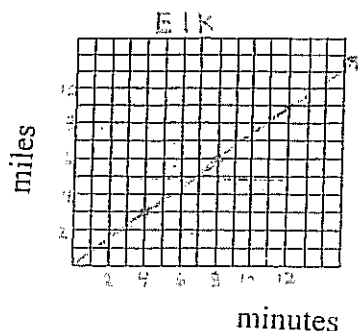
9. The table represents the speed of a hyena. The graph represents the speed of an elk. Which has greater speed? Justify your answer. (3 pts.)

*Justify*

$x =$  minutes,  $y =$  miles

Hyena

X	Y
3	2
6	4
12	8



$m =$  \_\_\_\_\_  $m =$  \_\_\_\_\_

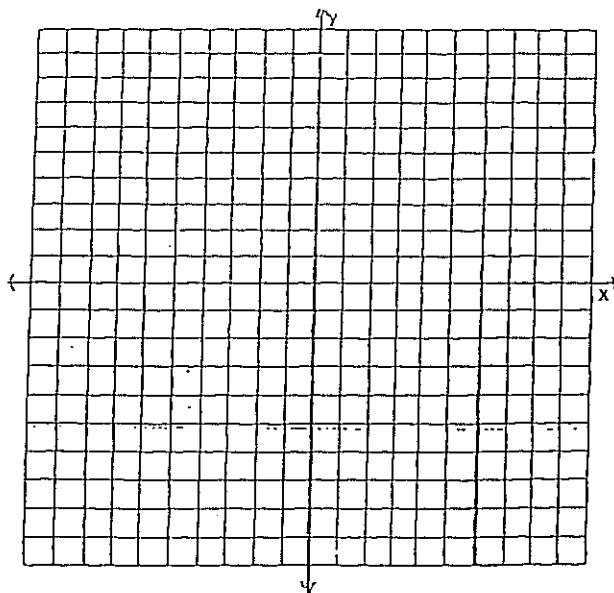
10. Graph each of the following and find the intersection. Is it one solution, infinitely many, or no solution? (5 pts.)

$$y = -x + 3$$

$$y = 2x - 3$$

intersection \_\_\_\_\_

# of solutions \_\_\_\_\_



**Chapter 8 Test (Part II)**  
(8<sup>th</sup> Grade) pg. 4

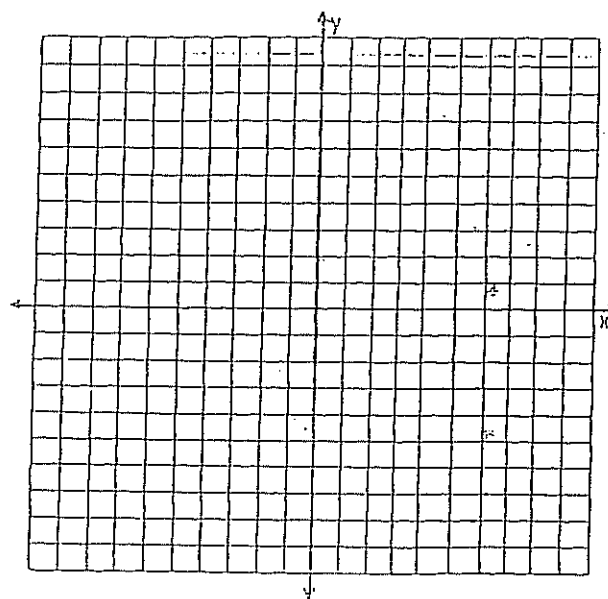
11. Graph each of the following and find the intersection. Is it one solution, infinitely many, or no solution? (5 pts.)

$$3x + 2y + x = 8$$

$$2(2x + y) = 12$$

intersection \_\_\_\_\_

# of solutions \_\_\_\_\_



12. Find the slope of each line through the given points. Determine whether or not the two lines will intersect. Justify your answer. (4 pts.)

Line A (-3,0) and (-1,6)

Unit rate = \_\_\_\_\_

Line B (5,5) and (2,7)

Unit rate = \_\_\_\_\_

Intersect? Y / N

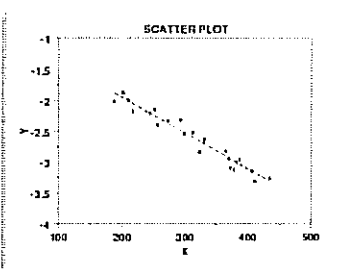
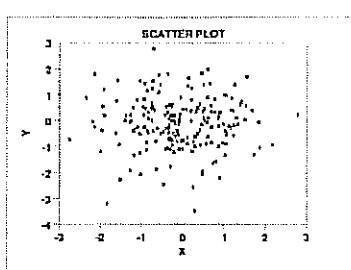
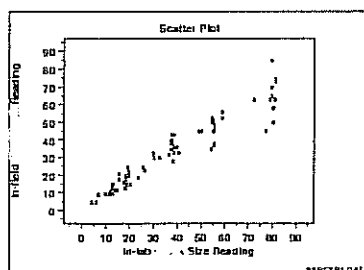
How do you know?

Looking at the scatter plots, determine if there is a **positive** correlation, **negative** correlation or **no correlation**. (1 point each)

13. \_\_\_\_\_

14. \_\_\_\_\_

15. \_\_\_\_\_





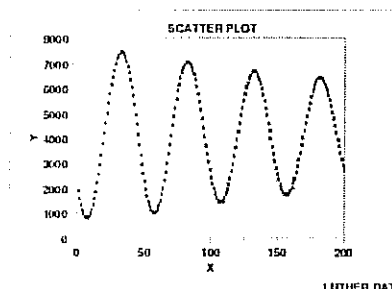
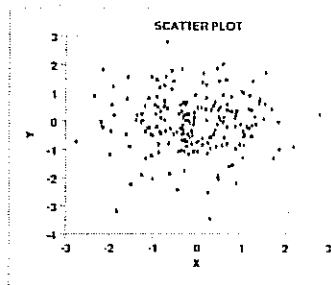
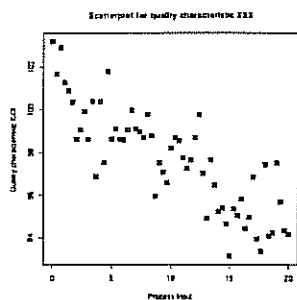
**Chapter 8 Test (Part II)**  
(8<sup>th</sup> Grade) pg. 5

Looking at the scatter plots, determine if there is a **linear** association or **nonlinear** association for each. (1 point each)

16. \_\_\_\_\_

17. \_\_\_\_\_

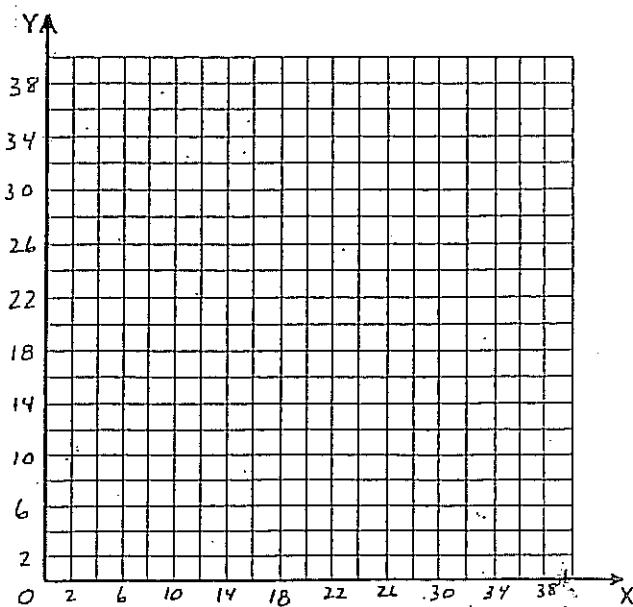
18. \_\_\_\_\_



19. Write the equation of the line  $y=mx+b$  that goes through the points (1,5) and (0,6) (4 pts.)

20. The table gives the ages and heights of 9 pine trees. Make a scatter plot of the data. Describe any patterns such as clustering, outliers, positive correlation, negative correlation, linear association or nonlinear association. (5 pts.)

Age (years)	1	5	10	13	19	23	28	35	39
Height (feet)	2	5	7	13	16	24	32	35	35



Describe any patterns

**Chapter 9 Test**  
(8<sup>th</sup> Grade) **50 points**

Name \_\_\_\_\_  
Class Period \_\_\_\_\_

*Find the **square root** of each number (1 pt. each)*

1. \_\_\_\_\_ 49

2. \_\_\_\_\_ 256

*Find the **cubed root** of each number (1 pt. each)*

3. \_\_\_\_\_ 8

4. \_\_\_\_\_ 125

*Solve for p (1 pt. each)*

5. \_\_\_\_\_  $x^2 = p$  when  $x = 8$

6. \_\_\_\_\_  $x^3 = p$  when  $x = 3$

*Show work for the following. (2 pts. each)*

7. \_\_\_\_\_ You purchased a cube shaped fish tank and want to fill it with water. How much water could it hold if the length, width, and height measure 10 inches each? ( $V=s^3$ )

8. \_\_\_\_\_ You want to buy carpet for a square room. If you know the area of the room equals 121 square feet, what is the length of the room? ( $A=s^2$ )

*Simplify each expression (2 pts. each)*

9. \_\_\_\_\_  $\sqrt{72}$

10. \_\_\_\_\_  $\sqrt{\frac{8}{n^2}}$

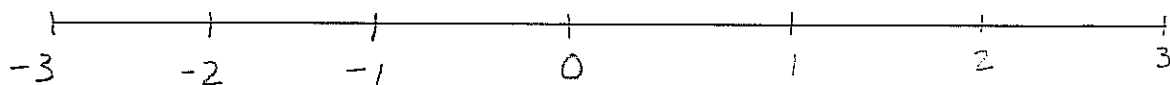
11. \_\_\_\_\_  $\sqrt{300x}$

12. \_\_\_\_\_  $\sqrt{\frac{x^2}{200}}$

**Chapter 9 Test**  
(8<sup>th</sup> Grade) pg. 2

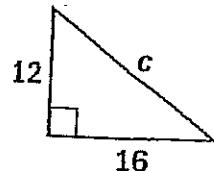
13. Use a number line to order the numbers from least to greatest. (2 pts.)

$$\sqrt{2} \quad \frac{11}{5} \quad -2.8 \quad -\sqrt{3}$$

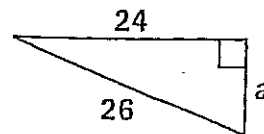


Find the unknown length. Write your answer in simplest form. (4 pts. each)

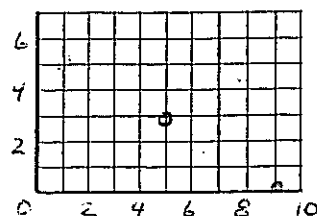
14. \_\_\_\_\_ Karen planted a triangular garden in the corner of her lot. It measures 16 feet long and 12 feet wide. She wants to put a fence along the longest side. How long will her fence need to reach?



15. \_\_\_\_\_ A dressmaker saw a pattern of right triangles. The hypotenuse measured 26 mm and one of the legs measured 24 mm. How long was the other leg?



16. \_\_\_\_\_ Apply the Pythagorean Theorem to find the distance between the two points (9,0) and (5,3).



Determine whether the triangle with the given side lengths is a right triangle. Circle your choice. (1 pt. each)

17. YES NO 6, 10, 12

18. YES NO 15, 39, 36

**Chapter 9 Test**  
(8<sup>th</sup> Grade) pg. 3

Indicate whether the given number is rational or irrational. Circle your choice. (1 pt. each)

19.     Rational         Irrational          $\frac{2}{7}$

20.     Rational         Irrational          $\sqrt{71}$

21.     Rational         Irrational          $8.\overline{34}$

Change each rational number to a quotient of two integers. (2 pts.)

22. \_\_\_\_\_  $7.\overline{14}$

23. \_\_\_\_\_  $-0.\overline{3}$

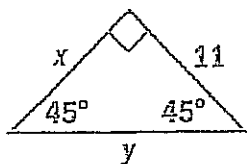
What is the distance between the points? Write your answer in simplest form. (3 pts.)

24. \_\_\_\_\_  $(-6, -2)$  and  $(-2, 1)$

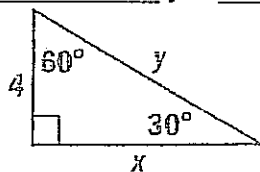
25. \_\_\_\_\_ Find the midpoint between the two points  $(2,4)$  and  $(-1,0)$ .  
(2 pts.)

Find the unknown lengths. Write your answer in simplest form. (2 pts. each)

26.  $x =$  \_\_\_\_\_  $y =$  \_\_\_\_\_



27.  $x =$  \_\_\_\_\_  $y =$  \_\_\_\_\_



Extra Credit (2 points).

For  $\overline{AB}$  with midpoint M, determine the coordinates of point B.

$A(2, 4)$  and  $M = (-1, 0)$

**Chapter 13 Test**  
(8<sup>th</sup> Grade) 50 points

Name \_\_\_\_\_  
Class Period \_\_\_\_\_

Tell whether the angles are complementary, supplementary, or neither (1 pt)

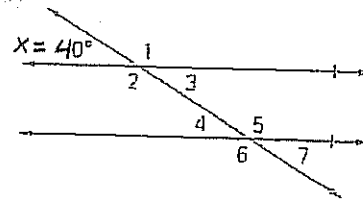
1.  $m\angle 1 = 82^\circ$   
 $m\angle 2 = 98^\circ$

2.  $m\angle 1 = 53^\circ$   
 $m\angle 2 = 27^\circ$

3.  $m\angle 1 = 7^\circ$   
 $m\angle 2 = 83^\circ$

4. Find the measure of the numbered angles in the diagram (3 pts)

$x = 40^\circ$



Find the SUM of the measures of the interior angles of each polygon. (2 pts)

5. Hexagon

6. Pentagon

7. Quadrilateral

8. Five exterior angles of a hexagon have measures of  $78^\circ$ ,  $50^\circ$ ,  $89^\circ$ ,  $37^\circ$ , and  $65^\circ$ . Find the measure of the sixth exterior angle. (2 pts)

9a. DRAW  $\triangle ABC$  with  $A(0,3)$ ,  $B(-4,1)$ ,  $C(3,-2)$

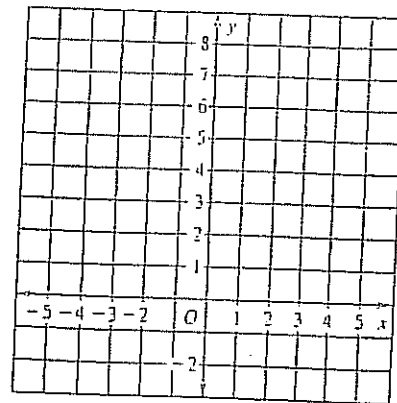
(3 pts)

b. Find coordinates of the vertices of the image after

the translation  $(x,y) \rightarrow (x+3,y+5)$

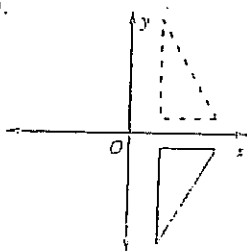
c. DRAW new image

(3 pts)

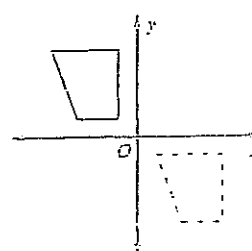


Tell whether the transformation is a reflection. If so, identify the line of reflection (2 pts)

10.



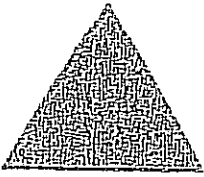
11.



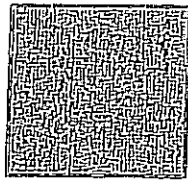
Chapter 13 Test  
(8<sup>th</sup> Grade) pg. 2

Tell how many lines of symmetry the figure has (2 pts)

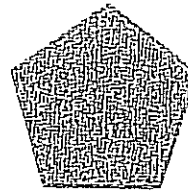
12.



13.

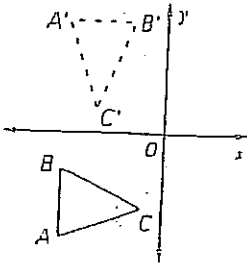


14.

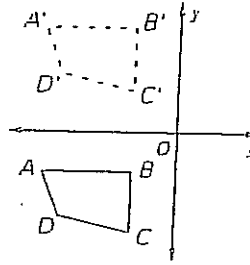


Tell whether the transformation is a rotation about the origin. If so, give the angle and direction of rotation. (2 pts)

15.



16.



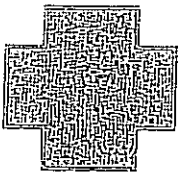
Let  $\triangle ABC$  have vertices  $A(-6, 3)$ ,  $B(-1, -4)$ ,  $C(3, -5)$ . Give the coordinates of the vertices of the image after the specified transformation. (3 pts)

17. reflection in the x-axis

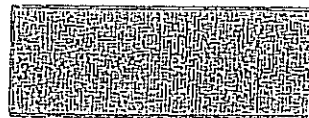
18.  $180^\circ$  rotation

Give angle of rotation and number of rotations that produce rotational symmetry (2 pts)

19.



20.



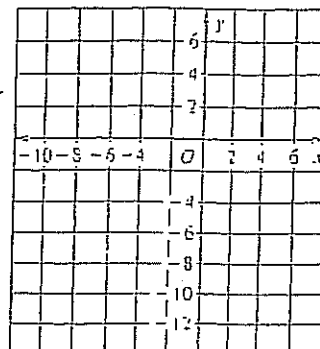
21a. Draw  $\triangle PQR$  with  $P(-5, 3)$ ,  $Q(1, -4)$ ,  $R(-1, -6)$ .  
(3 pts)

b. Then find the coordinates of the vertices after a

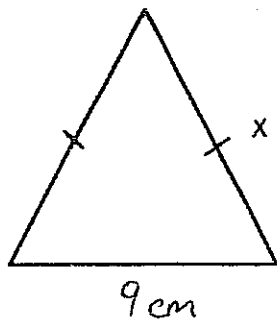
Dilation having a scale factor of 2.

c. Draw the new image

(3 pts)

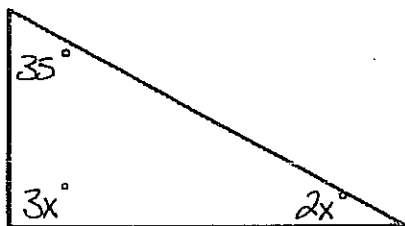


1. Solve for  $x$ , and classify the triangle: Scalene, Isosceles, Equilateral

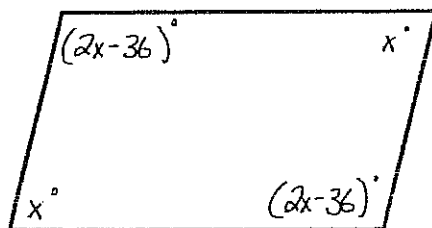


Perimeter = 25cm

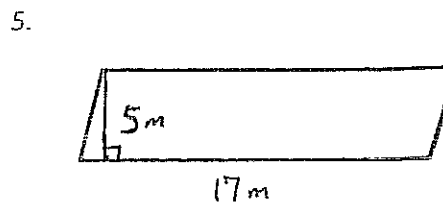
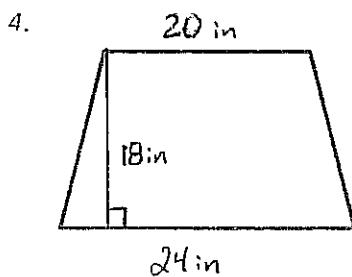
2. Solve for  $x$ , and classify the triangle: Acute, Obtuse, Right



3. Solve for  $x$ , and classify the quadrilateral: Trapezoid, Parallelogram, Rhombus, Rectangle, Square



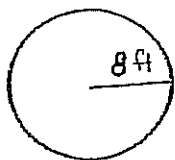
Find the AREA.



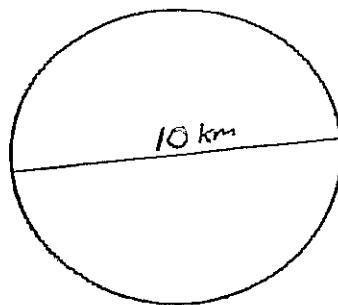
Chapter 10 Test  
Part I pg. 2

Find the AREA and CIRCUMFERENCE

6.

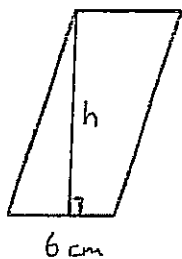


7.



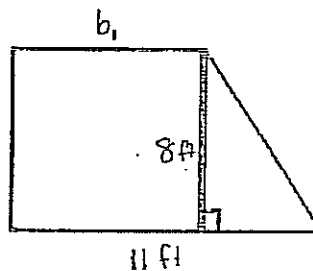
Find the unknown measure of the parallelogram, trapezoid, or circle. Round answer to nearest whole number.

8.



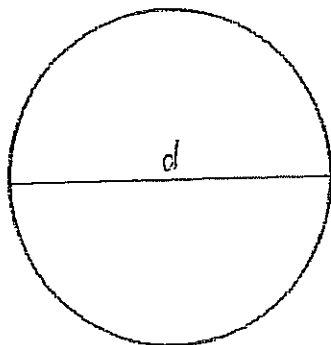
$$A = 54 \text{ cm}^2$$

9.



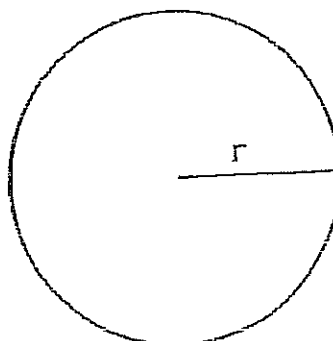
$$A = 68 \text{ ft}^2$$

10.



$$C = 132 \text{ mm}$$

11.



$$A = 201 \text{ m}^2$$



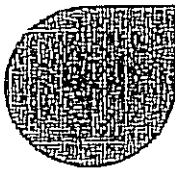
Chapter 10 Test  
Part I pg. 3

Matching

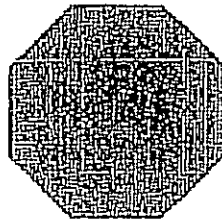
- |                         |                     |
|-------------------------|---------------------|
| 12. _____ Hexagon       | A. 4 sided polygon  |
| 13. _____ Decagon       | B. 5 sided polygon  |
| 14. _____ Pentagon      | C. 6 sided polygon  |
| 15. _____ Heptagon      | D. 7 sided polygon  |
| 16. _____ Quadrilateral | E. 8 sided polygon  |
|                         | F. 10 sided polygon |

Determine whether or not each is a polygon (YES or NO). If Yes, classify the polygon.

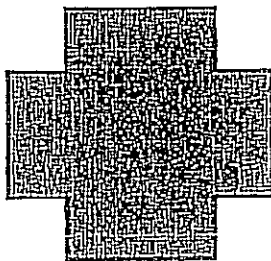
17.



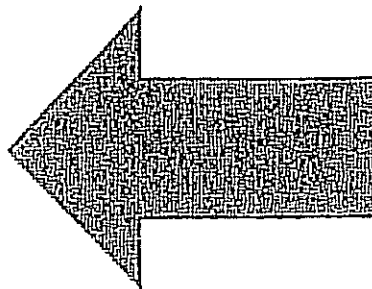
18.



19.



20.



Bonus: For #17-20, indicate convex or concave. (1 pt. each)

Chapter 10. Test

Part 1

Match the correct equation with the right name by placing the right letter on the line provided.  
(1pt. each)

You must have this part of the test checked before you get the second part of the test!!

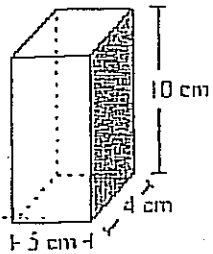
(+3 if all formulas are correct the first time. +1 if all formulas are correct the second time.)

- |                                     |  |
|-------------------------------------|--|
| 1. _____ Volume of a Cone           | A. $\pi r^2$   |
| 2. _____ Volume of a Prism          | B. $a^2 + b^2 = c^2$                                       |
| 3. _____ Volume of a Cylinder       | C. $2B + Ph$ or $2(bw) + Ph$                               |
| 4. _____ Volume of a Pyramid        | D. $\pi r^2 + \pi r l$                                     |
| 5. _____ Area of a triangle         | E. $\frac{1}{3}Bh$ or $\frac{Bh}{3}$ or $\frac{1}{3}(bw)h$ |
| 6. _____ Surface area of a Cylinder | F. $2\pi r^2 + 2\pi r h$                                   |
| 7. _____ Surface area of a Prism    | G. $Bh$ or $bwh$   |
| 8. _____ Surface are of a Pyramid   | H. $\pi r^2 h$   |
| 9. _____ Area of a circle           | I. $\frac{1}{2}bh$ or $\frac{bh}{2}$                       |
| 10. _____ Surface area of a cone    | J. $\frac{1}{3}\pi r^2 h$ or $\frac{\pi r^2 h}{3}$         |
| 11. _____ Pythagorean Theorem       | K. $B + \frac{1}{2}Pl$ or $(bw) + \frac{1}{2}Pl$           |

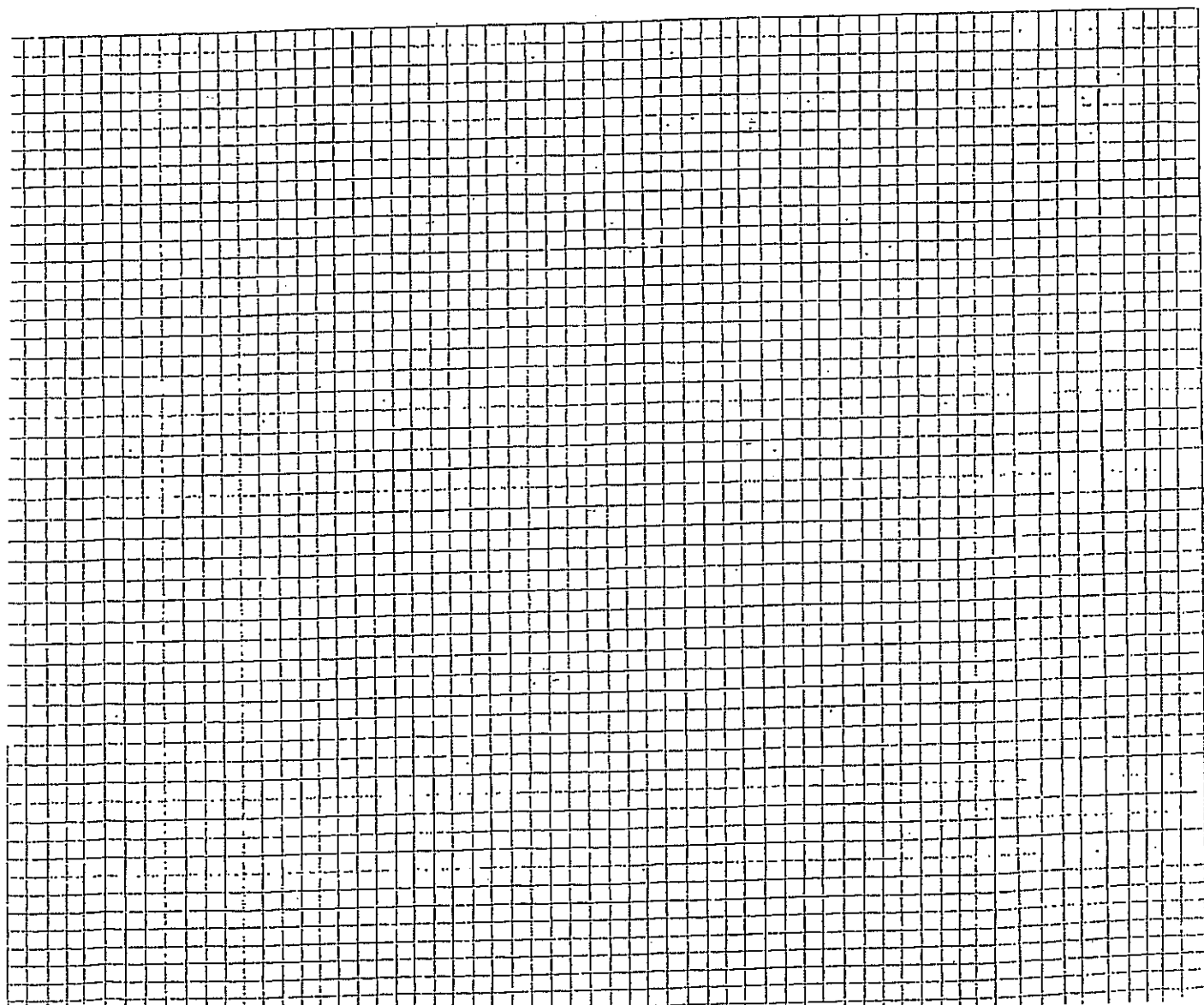
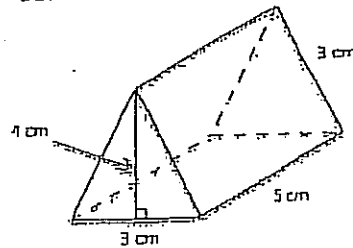
**Chapter 10 Test**  
Part 2 pg. 2

Use the graph to draw a NET for each of the following shapes. (2 pts. each)

12.

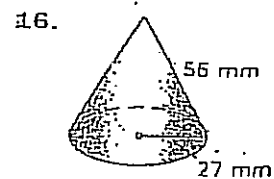
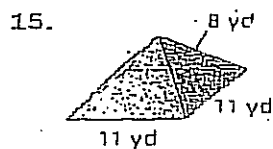
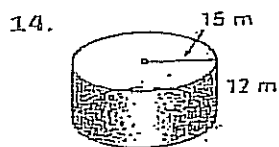


13.



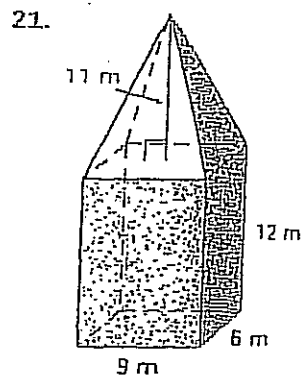
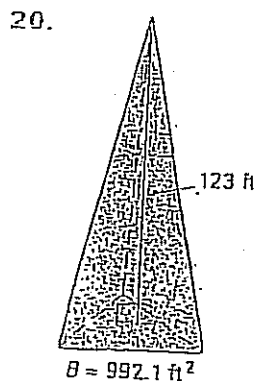
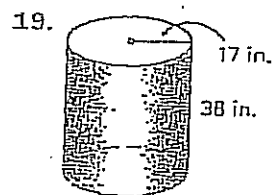
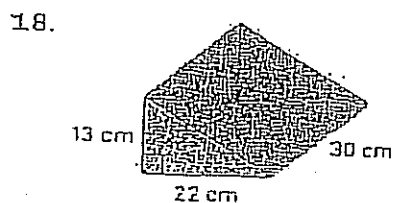
Chapter 10 Test  
Part 2 pg. 3

Find the surface area of the cylinder, pyramid, or cone. Round to the nearest whole number. Use 3.14 for  $\pi$ . (4 pts. each)



17. You are wrapping a gift box that is 16 inches long, 7 inches wide, and 9 inches tall. Find the least amount of wrapping paper needed to cover the gift box to the nearest square inch. (4 pts.)

Find the volume of the solid. Round to the nearest whole number. Use 3.14 for  $\pi$ . (4 pts.)



22. You are filling paper cones with popcorn for a party. The radius of each cone is 8 centimeters and the height is 15 centimeters. Find the amount of popcorn needed to fill the paper cone to the nearest cubic centimeter. Use 3.14 for  $\pi$ . (4 pts.)



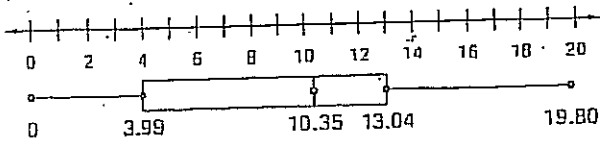
Name \_\_\_\_\_

## Chapter 11 Test Part I

1. The average weights, in grams, of 35 species of baby birds are given below. Make an ordered stem-and-leaf plot of the data.

10, 15, 11, 12, 10, 8, 7, 10, 20, 18, 18, 12, 5, 10, 11, 7, 5, 20,  
21, 25, 11, 21, 12, 16, 5, 5, 12, 11, 10, 5, 18, 7, 6, 12, 9

2. The amounts of sugar, in grams, in one serving of 54 types of cereal are displayed in the box-and-whisker plot. About what percent of the cereals have between 3.99 and 10.35 grams of sugar per serving?



- a. What is the median? \_\_\_\_\_
- b. What is the upper extreme? \_\_\_\_\_
- c. What percent of cereals are between 3.99 and 10.35 grams? \_\_\_\_\_
- d. What is the lower quartile? \_\_\_\_\_

Tell whether the data are **numerical** or **categorical**?

3. The salaries of engineers in the United States. \_\_\_\_\_
4. The highway gas mileages of several vehicles. \_\_\_\_\_

A sample of the people that attended a conference is surveyed to find ways to improve the next conference. Tell what type of sampling method is used.

5. The attendees are divided into age groups and then 20 people from each age group are randomly selected.
6. The names of the attendees are alphabetized. Every tenth person on the list is selected.
7. \_\_\_\_\_ A survey with a margin of error of  $\pm 3\%$  finds that 45% of the constituency is in favor of the new bill that was passed. In which interval is the population percent most likely to lie?

8. Name two ways that a graph can be misleading.

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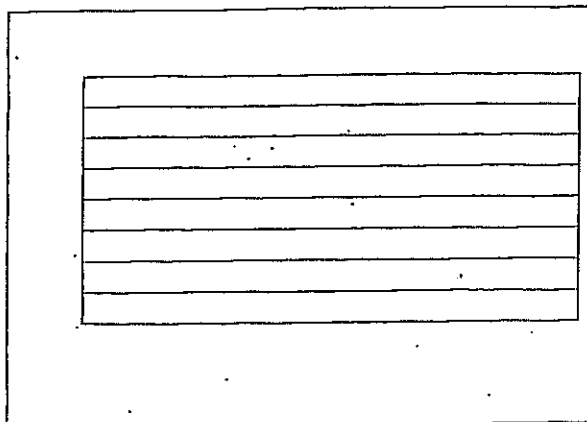
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9. \_\_\_\_\_ You interview a random sample of 100 people. Forty-two people say that raspberry is their favorite muffin. There are 3000 people in town. Predict how many people in the town would say that raspberry is their favorite muffin flavor.

Chapter 11 Test  
Part I pg. 3

10. The frequency table shows the distribution of the closing prices, in dollars, of stocks of regional interest. Use the frequency table to make a histogram of the data.

Prices	Frequency
0-9	12
10-19	6
20-29	15
30-39	13
40-49	8
50-59	4
60-69	2
70-79	0
80-89	1
90-99	1



- a. \_\_\_\_\_ What percent of closing prices are above \$70
- b. \_\_\_\_\_ How many intervals are higher than 7?

Determine if the questions are potentially biased. Explain your answer.

11. Would you rather have an awesome black and gold jacket or a plain red jacket?

12. Would you rather watch a movie at a theater or your house?

13. Would you rather enjoy playing football or stand around bored playing baseball?

**Pre-Algebra**

**Chapter 11 Part 2 Test**

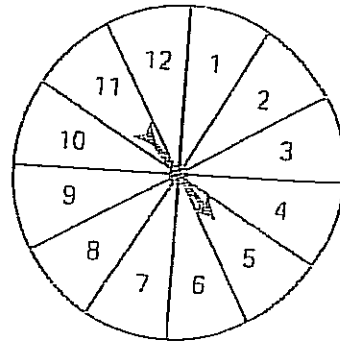
Name: \_\_\_\_\_

Date: \_\_\_\_\_

1. What is the probability that the spinner stops on a multiple of 4?

2. What are the odds in favor of stopping on a multiple of 3?

3. If you spin the spinner 100 times, how many times do you expect it to stop on a number less than 10?



4. You are renting a car. You can choose a compact, mid-size, full-size, or SUV. From those categories you can choose a low, average, or high priced model. How many different automobile choices do you have?

5. At a restaurant, you can choose 2 different side dishes from a list of 10. How many possible side dish choices do you have?

6. An entry code into a building is a 5-digit number

a) How many different codes are possible if you repeat numbers?

b) How many different codes are possible if you DON'T repeat numbers?

c) If there are 80 employees, each with a different code, what is the probability you guess one of the codes? (use your answer from b)



Chapter 11 Test  
Part 2 pg. 2

Evaluate.

7.  $4!$

8.  $7!$

9.  ${}_6P_3$

10.  ${}_9P_3$

11.  ${}_{11}C_4$

12.  ${}_{15}C_9$

Given  $P(A)$ , find  $P(\text{not } A)$

13.  $P(A) = 98\%$

14.  $P(A) = \frac{3}{8}$

15.  $P(A) = 0.37$

Using a standard 52 card deck, find the probabilities.

(Hint: 4 suits – clubs, spades, hearts, diamonds)

Find the probability of drawing the following 2 cards, show work and always reduce your fractions!

16.  $P(\text{King or Ace})$  with replacing the cards =

17.  $P(\text{Red or } 7)$  with replacing the cards =

18.  $P(5 \text{ and } 10)$  with replacing the cards =

19.  $P(\text{Jack and Jack})$  without replacing the cards =

Name \_\_\_\_\_

# Chapter 12 Test

## Pre-Algebra

Write the expression as a polynomial in standard form (3 points).

1.  $m^4 + 4(7m^2 - 9m^4 + 2m^5)$

Find the sum, difference, or product. Write your answer in standard form (3 points each).

2.  $(7x^3 + 10x^2 + 5x + 1) + (2x^3 + 8x^2 + 6x + 9)$

3.  $(10y^2 + 22y + 18) - (7y^2 + 19y + 7)$

4.  $(11k^2 - 9k + 6) + (-8k^2 + 14k - 5)$

5.  $(13x^2 + 19x - 5) - (-8x^2 - 7x - 16)$

6.  $(5k + 2)(3k + 1)$

8.  $-r(-r^2 + 2r - 1)$

7.  $-g^2(g^2 - 6g)$

9.  $xy(5x + 6y + 8)$

Simplify the expression. Write your answer using positive exponents (2 points each).

10.  $(4t)^3$

13.  $(-5^{-2})^{-3}$

11.  $(\frac{3}{y})^4$

14.  $(t^{-3})^6$

12.  $(\frac{k}{-2})^5$

15.  $(a^3b^4)^5$

Extra Credit.

16. You are putting a 5-inch border around a rectangular painting with a length of 4 inches less than 3 times its width  $w$ . Write a polynomial expression in standard form in terms of  $w$  for the total area of the painting and border. Then, find the area of the painting and border for  $w = 10$ . (3 points)

17. Find the quotient of  $\frac{21d^5 - 18d^4 - 9d}{3d}$ . (1 point)

## IV. NCTM Standards

- A. Data Analysis and Probability (6-8)
- B. Standards for Measurement (6-8)
- C. Problem Solving

# NCTM Standards for Data Analysis and Probability:

## Grades 6-8

*Formulate questions that can be addressed with data and collect, organize, and display relevant data to answer them*

- formulate questions, design studies, and collect data about a characteristic shared by two populations or different characteristics within one population
- select, create, and use appropriate graphical representations of data, including histograms, box plots, and scatter plots

*Select and use appropriate statistical methods to analyze data*

- find, use, and interpret measures of center and spread, including mean and interquartile range
- discuss and understand the correspondence between data sets and their graphical representations, especially histograms, stem-and-leaf plots, box plots, and scatter plots

*Develop and evaluate inferences and predictions that are based on data*

- use observations about differences between two or more samples to make conjectures about the populations from which the samples were taken
- make conjectures about possible relationships between two characteristics of a sample on the basis of scatter plots of the data and approximate lines of fit
- use conjectures to formulate new questions and plan new studies to answer them

*Understand and apply basic concepts of probability*

- understand and use appropriate terminology to describe complementary and mutually exclusive events
- use proportionality and a basic understanding of probability to make and test conjectures about the results of experiments and simulations
- compute probabilities for simple compound events, using such methods as organized lists, tree diagrams, and area models

## NCTM Standards for Measurement:

### Grades 6-8

*Understand measurable attributes of objects and the units, systems, and processes of measurement*

All students should -

- Understand both metric and customary systems of measurement
- Understand relationships among units and convert from one unit to another within the same system
- Understand, select, and use units of appropriate size and type to measure angles, perimeter, area, surface area, and volume

*Apply appropriate techniques, tools, and formulas to determine measurements*

All students should -

- Use common benchmarks to select appropriate methods for estimating measurements
- Select and apply techniques and tools to accurately find length, area, volume, and angle measures to appropriate levels of precision
- Develop and use formulas to determine the circumference of circles and the area of triangles, parallelograms, trapezoids, and circles and develop strategies to find the area of more-complex shapes
- Develop strategies to determine the surface area and volume of selected prisms, pyramids, and cylinders
- Solve problems involving scale factors, using ratio and proportion
- Solve simple problems involving rates and derived measurements for such attributes as velocity and density

## *Problem Solving*

Instructional programs from prekindergarten through grade 12 should enable all students to –

- build new mathematical knowledge through problem solving
- solve problems that arise in mathematics and in other contexts
- apply and adapt a variety of appropriate strategies to solve problems
- monitor and reflect on the process of mathematical problem solving

## V. Daily Routines

A. Mental Math

B. Daily Math Reviews



## MM 8-1

1.  $58 + 6 =$  (64)
2. What is  $x$ , if  $x + 5 = 7$  (2)
3. What is 56 times  $1/10$ ? (5.6)
4. What is  $3/4$  of 20? (15)
5. How many inches in 9 ft? (108)

## MM 8-3

1. Estimate  $196 \times 52$ . (10,000)
2.  $48 + 62 = ?$  (110)
3. What is  $M$  if  $M + 3 = 10$ ? (7)
4. What is 62 times 5 tenths. (31)
5. What is  $1/8$  of 40? (5)

## MM 8-2

1. What is the reciprocal of 8? ( $1/8$ )
2. What is 5% of 100? (5)
3. 5 minus 2 and 7 tenths is ? (2.3)
4. Mary has 5 times as much money as Bob. If Bob has 40 cents, how much money does Mary have? (\$2)
5.  $5 \frac{1}{3}$  yards equal how many ft.? (16 ft.)

## MM 8-4

1. What is  $2/3$  of 21? (14)
2. Seven minus 2 and 3 tenths. (4.7)
3. If a quart of milk costs 50 cents. What is the cost of a gallon? (\$2)
4. What is 1% of 50? (.5)
5. What is the reciprocal of 100? ( $1/100$ )

## MM 8-5

1. Carla has half as much money as Julie. Julie has \$4.44. How much does Carla have? (\$2.22)
2. What is 27 divided by 2? (13.5)
3.  $947 \times 10$  (9470)
4.  $51 + 49 = ?$  (100)
5. What is 100 times 9 tenths? (90)

## MM 8-7

1. If a lb. of candy costs \$2.80, what would 8 oz. cost? (\$1.40)
2.  $52 = ?$  (25)
3. How many eighths in 4? (32)
4. Eight minus seven and nine tenths = ? (.1)
5. If  $x - 5 = 12$ , what is  $x$ ? (17)

## MM 8-6

1. Six and one half minus two and one fourth = ? ( $4 \frac{1}{4}$ )
2. If a dozen oranges cost \$1.80, what would 6 oranges cost? (90 cents)
3. What is 100% of 42.5? (42.5)
4. 2 yds. equals how many ft.? (6)
5. If  $k = 7$ , what does  $k + 6$  equal? (13)

## MM 8-8

1. Henry has  $\frac{3}{4}$  as much money as Alice. Alice has \$2. How much money does Henry have? (\$1.50)
2. How many  $\frac{1}{10}$ 's in 10? (100)
3.  $38 + 69 = ?$  (107)
4.  $\frac{2}{3} - \frac{1}{2} = ?$  ( $\frac{1}{6}$ )
5. What is 20% of 10? (2)

## MM 8-9

1. What is the reciprocal of  $9/10$ ? ( $10/9$ )
2. What is 58 divided by 10? (5.8)
3. How many yds. in 30 ft.? (10)
4. Estimate  $4 \times 49$ . (200)
5. What is  $2 \frac{1}{2}$  times 8? (20)

## MM 8-11

1. Six minus two and three fourths = ? ( $3 \frac{1}{4}$ )
2. Estimate  $53 \times 81$ . (4000)
3. What is 50% of 11? (5.5)
4.  $\frac{3}{4} - \frac{1}{8} = ?$  ( $\frac{5}{8}$ )
5.  $108 + 999 = ?$  (1107)

## MM 8-10

1. If tape costs 45 cents a yd., what would 1 ft. cost? (15 cents)
2. Pencils are 5 cents each. Notebooks are \$1 each. How much would 3 pencils and 2 notebooks cost? (\$2.15)
3. Jolene has  $3 \frac{1}{2}$  times the money as Bill. Bill has \$4. How much more money does Jolene have? (\$14)
4.  $81 = ?$  (8)
5.  $\frac{1}{2}$  yd. equals how many feet? ( $1 \frac{1}{2}$ )

## MM 8-12

1. What is the reciprocal of  $1/100$ ? (100)
2. How many fifths in 6? (30)
3. What is 90 times three tenths? (27)
4. What is 99 divided by 10? (9.9)
5. If  $x + 5 = 5$ , what is  $x$ ? (0)

## MM 8-13

1. What is 50% of 1? (.5)
2. What is the area of a triangle with a base of 6 in. and a height of 8 in. (24 square inches)
3. What is  $\frac{2}{3} \times \frac{2}{3}$ ? ( $\frac{4}{9}$ )
4. How many quarts in 5 gal.? (20)
5. What is 25% of 100? (25)

## MM 8-15

1.  $\frac{7}{8} - \frac{3}{4} = ?$  ( $\frac{1}{8}$ )
2. What is 10% of 150? (15)
3.  $2^3 = ?$  (8)
4. How many thirds in  $2 \frac{1}{3}$ ? (7)
5. What is  $\frac{1}{4} \times \frac{3}{4}$ ? ( $\frac{3}{16}$ )

## MM 8-14

1. What is 2010 divided by 100? (20.1)
2. What is  $\frac{1}{3}$  of  $\frac{1}{2}$ ? ( $\frac{1}{6}$ )
3. Apples are 8 cents each. Oranges are 11 cents. What would 3 of each cost? (57 cents)
4. 10 is what % of 5? (200)
5. What is 5 and 3 tenths plus 8? (13.3)

## MM 8-16

1. Paint costs 50 cents a pint, brushes cost \$1.50. How much would 3 pints of paint and 2 brushes cost? (\$4.50)
2. What is  $\frac{1}{2} \times \frac{3}{4}$ ? ( $\frac{3}{8}$ )
3. What is the area of a triangle with a base of 8 in. and a height of 1 in.? (4 square inches)
4. What is  $\frac{5}{6}$  of  $\frac{1}{2}$ ? ( $\frac{5}{12}$ )
5. What is 60% of 100? (60)

## MM 8-17

1. Estimate  $83 \times 72$ . (5600)
2. How many cups in 1 pt.? (2)
3. What is 108 divided by 10? (10.8)
4.  $5/6 - 1/6$  in lowest terms. ( $2/3$ )
5. What is  $3/5$  of 40? (24)

## MM 8-19

1. If bananas cost ten cents each and pears cost 12 cents each, what would 3 bananas and 4 pears cost? (78 cents)
2. What is 2 and 5 tenths plus 3 and 5 tenths? (6)
3. What is 25% of 80? (20)
4. What is  $7/8 \times 1$ ? ( $7/8$ )
5. What is the area of a triangle with a base of 10 m. and a height of 10 m.? (50 square meters)

## MM 8-18

1. What is 3% of 100. (3)
2.  $80 = ?$  (1)
3. What is the reciprocal of  $7/11$ ? ( $11/7$ )
4. I walked 5280 ft. How much less would I walk if I went 1760 yds.? (none)
5. What is 500 times one tenth? (50)

## MM 8-20

1. Estimate  $61 - 29$ . (30)
2.  $9/10 - 1/2 = ?$  ( $4/10$ )
3. What is  $1/5$  of 5? (1)
4. How many lbs. in 2 tons? (4000)
5. What is 50% of 4.2? (2.1)

## MM 8-21

1. What is  $4/5 \times 2/3$ ? (8/15)
2. One to the 22nd power = ? (1)
3. Mary paid \$2.50 a piece for baby lambs. What would 3 lambs cost? (\$7.50)
4. 4 is what % of 1? (400)
5. How many fourths in 40? (160)

## MM 8-22

1. What is the area of a triangle with a base of 16 in. and a height of 2 in. ? (16 square inches)
2. What is  $1/5 \times 10$ ? (2)
3. What is  $8.4 / 10$ ? (.84)
4. Estimate  $103 - 49$ . (50)
5. What is 25% of 200? (50)

## MM 8-23

1. What is  $3/4$  of  $3/4$ ? (9/16)
2. What is 4 and 3 tenths plus 4 and 7 tenths? (9)
3.  $1 \frac{1}{2} - 1/4 = ?$  ( $1 \frac{1}{4}$ )
4. How many cups in 1 qt.? (4)
5. What is 100% of 7? (7)

## MM 8-24

1. What is  $4/7 \times 2/5$ ? (8/35)
2. 286 to the first power = ? (286)
3. If marbles cost \$1.20 a doz., what would three marbles cost? (30 cents)
4. Six is what % of 3? (200)
5. What is the area of a triangle whose base is  $1/2$  in. and height is 20 in.? (5 inches)

## MM 8-25

1. What is 4 and 3 tenths plus 9 and 8 tenths? (14.1)
2. Estimate  $202 - 39$ . (160)
3. If  $x/2 = 10$ , what does  $x$  equal? (20)
4. Round to tenths 68.56.  
(68.6)
5. What is  $5 - 1 \frac{5}{6}$ ? ( $3 \frac{1}{6}$ )

## MM 8-27

1. If  $x/5 = 5$ , what does  $x$  equal? (25)
2.  $218$  to the 0 power equals? (1)
3. What is 25% of 4? (1)
4. What is  $\frac{7}{8} \times \frac{1}{2}$ ? ( $\frac{7}{16}$ )
5. What is 40% of 40? (16)

## MM 8-26

1. What is  $\frac{9}{10} \times \frac{9}{10}$ ?  
( $\frac{81}{100}$ )
2. What is 9.6 divided by 10?  
(.96)
3. What is  $\frac{7}{8}$  of 1? ( $\frac{7}{8}$ )
4. Two is what percent of 1?  
(200)
5. How many cups in one gallon?  
(16)

## MM 8-28

1. Round to tenths 4.088.  
(4.1)
2. Estimate  $981 - 208$  (770)
3. What is  $11 - 2 \frac{1}{2}$ ? ( $8 \frac{1}{2}$ )
4. What is 3 tenths plus 9 tenths? (1.2)
5. What is  $\frac{1}{5}$  of  $\frac{3}{5}$ ? ( $\frac{3}{25}$ )

## MM 8-29

1. 20 is what % of 4? (500)
2. Write  $\frac{2}{3} + \frac{2}{3}$  as a mixed number? ( $1 \frac{1}{3}$ )
3. How many qts. in 2 gal.? (8)
4. Write  $3 \times 3 \times 3$  in exponential form. ( $3^3$ )
5. What is 48.5 divided by 100. (.485)

## MM 8-31

1. Round to the nearest tenth 99.99. (100)
2. What is  $\frac{3}{4} + \frac{2}{4}$  as a mixed number? ( $1 \frac{1}{4}$ )
3. What is  $12 - 6 \frac{6}{7}$ ? ( $5 \frac{1}{7}$ )
4. If 3 apples cost 60 cents, what would 9 apples cost? (\$1.80)
5. 3 is what % of  $1 \frac{1}{2}$ ? (200)

## MM 8-30

1. What is 9 tenths plus 9 tenths plus 9 tenths? (2.7)
2. Estimate 2008 - 194. (1800)
3. What is 25% of 1? (.25)
4. If  $x/3 = 6$ , what does x equal? (18)
6. What is  $\frac{1}{4}$  of  $\frac{1}{6}$ ? ( $\frac{1}{24}$ )

## MM 8-32

1. What is 7 tenths plus 5 and 7 tenths? (6.4)
2. Write  $4 \times 4 \times 4$  in exponential form. ( $4^3$ )
3. If  $x/10 = 10$ , what does x equal? (100)
4.  $7.2 / 2 =$  (3.6)
5. What is 25% of 40? (10)



## MM 8-33

1. What is 69.8 divided by 100? (.698)
2. What is  $7/8 + 5/8$  as a mixed number? ( $1 \frac{1}{2}$ )
3. Round to the nearest tenth 46.01. (46)
4. What is  $3/6$  of  $3/5$ ? ( $9/25$ )
5. Estimate  $2480 - 500$ . (2000)

## MM 8-35

1. An 8-sided polygon is called what? (an octagon)
2. Write  $2 \times 2 \times 2 \times 2 \times 2$  in exponential form. ( $2^5$ )
3.  $6.6 / 2 = (3.3)$
4. If  $x + 9 = 17$ , what is  $x$ ? (8)
5. What is 25% of 60? (15)

## MM 8-34

1. What is  $7/9 + 7/9$  as a mixed number? ( $1 \frac{5}{9}$ )
2. What is  $5 - 3 \frac{3}{8}$ ? ( $1 \frac{5}{8}$ )
3. If two candy bars cost 60 cents, what would 10 candy bars cost? (\$3)
4.  $5.6 / 10 = (.56)$
5. 8 is what % of 2? (400)

## MM 8-36

1. What is 10.1 divided by 10? (1.01)
2. What is  $16 - 15 \frac{7}{8}$ ? ( $1/8$ )
3. If  $x/7 = 3$ , what is  $x$ ? (21)
4. Round to tenths 56.91. (57.0)
5. What is  $5/8 + 5/8 + 5/8$  as a mixed number? ( $1 \frac{7}{8}$ )

## MM 8-37

1. If  $x / 2.5 = 1$ , what does  $x$  =? (2.5)
2. What is  $2/3 + 2/3 + 2/3$  as a mixed number? (2)
3. Write  $1 \times 1 \times 1 \times 1$  in exponent form. (14)
4. If 10 plums cost \$.90, what would 3 plums cost? (\$.27)
5. What is  $1 - 7/8$ ? (1/8)

## MM 8-39

1. If  $x / 100 = 5$ , what does  $x$  equal? (500)
2. A new car can hold 6 people, how many people will 6 cars hold? (36)
3.  $5^3 =$  (125)
4.  $3 \frac{1}{4} \times 4 =$  (13)
5. If eggs cost \$1.20 a dozen, what would 6 eggs cost? (\$.60)

## MM 8-38

1. What is 4 divided by 10? (.4)
2. If  $x - 9 = 12$ , what is  $x$ ? (21)
3. A three-sided polygon is called what? (triangle)
4.  $8.4 / 4 = ?$  (2.1)
5. What is 1/2% of 200? (1)

## MM 8-40

1. What is  $1/3 + 1/3 + 1/3 + 1/3$  as a mixed number? (1  $1/3$ )
2. If  $x + 5 = 20$ , what is  $x$ ? (15)
3. What is 1/2% of 100? (.5)
4. A truck can carry 2000 lbs. How many lbs. can 9 trucks carry? (18,000 lbs.)
5. If bananas cost \$.75 for 5, what would 15 bananas cost? (\$2.25)

## MM 8-41

1. What is 88.88 divided by 10?  
(8.888)
2.  $2^5 = (32)$
3. A six-sided polygon is called what? (hexagon)
4.  $9.6 / 2 = (4.8)$
5.  $4 \frac{1}{2} \times 6 = (27)$

## MM 8-43

1. A carton will hold  $1 \frac{1}{2}$  dozen eggs. How many eggs will 4 cartons hold? (72)
2.  $9.3 / 3 = (3.1)$
3. Apples are three for \$.18. What would a dozen apples cost? (\$.72)
4.  $3 \frac{1}{5} \times 5 = (17.5)$
5. A ten sided polygon is called what? (decagon)

## MM 8-42

1. What is  $6 - 2 \frac{4}{5}$ ? ( $3 \frac{1}{5}$ )
2. A school bus can carry 45 people. How many people can 4 buses carry? (180)
3.  $1324 = (1)$
4. Bread is two loaves for \$.70. What would 3 loaves cost? (\$1.05)
5. If  $x - 5 = 7$ , what is x?  
(12)

## MM 8-44

1. What is  $1/2\%$  of 400? (2)
2.  $66^1 = (66)$
3. What is the reciprocal of  $4/9$ ? ( $9/4$ )
4. What is 100% of \$8? (\$8)
5.  $283 - 9 = (274)$

## MM 8-45

1. What is 8.1 divided by 10?  
(.81)
2.  $16 - 2 \frac{7}{8} = (13 \frac{1}{8})$
3.  $10.4 / 2 = (5.2)$
4.  $6 \frac{2}{3} \times 3 = (20)$
5. A six-sided polygon is called what? (hexagon)

## MM 8-47

1.  $654 - 18 = (636)$
2. If  $x = 5$ , what is  $10x$ ?  
(50)
3. If  $x - 6 = 6$ , what is  $x$ ?  
(12)
4. Round to the nearest tenth: 828.66 (828.7)
5. How many days in 15 wks.? (105)

## MM 8-46

1. What is  $1/2\%$  of 50? (.25)
2. What is the reciprocal of  $2 \frac{1}{9}$ ? (9/19)
3.  $3^4 = (81)$
4. Candy bars cost 3 for \$1.  
How much would 18 cost? (\$6)
5.  $40 - 5 \frac{5}{9} = (34 \frac{4}{9})$

## MM 8-48

1.  $30 = (1)$
2.  $3 \frac{1}{3} \times 3 = (10)$
3. What is the reciprocal of 5? (1/5)
4. What is 100% of 80? (80)
5. Shoes are 2 pair for \$89.  
How much would one pair cost? (\$44.50)

## MM 8-49

1. What is the reciprocal of  $16 \frac{1}{4}$ ? (4/65)
2.  $67 - 16 \frac{3}{8} = (50 \frac{5}{8})$
3. If  $x = 3$ , what is  $2 \frac{1}{3}x$ ? (7)
4.  $56 / 10 = (5.6)$
5. 5 is what % of 20? (25%)

## MM 8-51

1. If  $x = 8$ , What is  $2 \frac{1}{2}x$ ? (20)
2.  $6 \frac{1}{2} \times 6 = (39)$
3. What is the reciprocal of  $8 \frac{1}{4}$ ? (4/33)
4. How many months in 4 years? (48)
5.  $875 / 10 = (87.5)$

## MM 8-50

1. 10 is what % of 100? (10%)
2. What is  $\frac{1}{4}\%$  of 100? (.25)
3. Round to the nearest hundred: 4826.9. (4800)
4. What is 200% of 8? (16)
5.  $441 - 7 = (434)$

## MM 8-52

1.  $24 - 4 \frac{1}{5} = (19 \frac{4}{5})$
2. If  $x = 1$ , what is  $9 \frac{1}{2}x$ ? ( $9 \frac{1}{2}$ )
3.  $5 \times .8 = (4)$
4. Estimate the sum of 89 and 69. (160)
5. What is 8% of 40? (3.2)

## MM 8-53

1. What is  $1/4\%$  of 200? (.5)
2. Round to the nearest hundred: 18,586. (18,600)
3. 3 is what % of 6? (50%)
4.  $48 / 10 = (4.8)$
5. What is 100% of 96? (96)

## MM 8-55

1.  $38 - 6 \frac{1}{7} = (31 \frac{6}{7})$
2. If  $x = 1/4$ , what is  $5x$ ? ( $1 \frac{1}{4}$ )
3. Round to the nearest hundred: 4,866. (4,900)
4. Estimate the sum of 103 and 196. (300)
5.  $22 \times .2 = (4.4)$

## MM 8-54

1.  $16 \times .2 = (3.2)$
2. What is 200% of 1? (2)
3. How many weeks in 2 years? (104)
4. If  $x = 1/2$ , what is  $12x$ ? (6)
5. What is 6% of 20? (1.2)

## MM 8-56

1. What is 1000% of 5? (50)
2. What is 10% of 80? (8)
3.  $386 / 100 = (3.86)$
4. 12 is what % of 12? (100%)
5. How many days in 40 weeks? (280)

MM 8-57

1. If  $x / 2 = 10$ , what does  $x$  equal? (20)
2. What is  $1/2$  of 19? ( $9 \frac{1}{2}$ )
3.  $86 \times .2 = (17.2)$
4. Write 50% as a fraction. ( $1/2$ )
5. What is 5% of 60? (3)

MM 8-59

1. What is the perimeter of a 3 by 5 inch rectangle? (16 inches)
2.  $255 / 10 = (25.5)$
3. If  $x / 5 = 100$ , what does  $x$  equal? (500)
4.  $17 \times .3 = (5.1)$
5. What is  $1/2$  of 25? (12.5)

MM 8-58

1. Estimate the sum of 101, 196, and 198. (500)
2. Write 80% as a fraction. ( $4/5$ )
3. How many months in 10 years? (120)
4.  $3/8$  of 40 = (15)
5. What is 9% of 50? (4.5)

MM 8-60

1.  $-8 \times -9 = (72)$
2. 9 is what % of 36? (25%)
3. Write 30% as a fraction. ( $3/10$ )
4.  $4/5$  of 30 = (24)
5. Estimate the sum of 98, 49, and 51. (200)

## MM 8-61

1.  $380 / 10 = (38)$
2. Estimate the sum of 489 and 610. (1100)
3. What is 20% of 20? (4)
4. What is  $1/6$  of 30? (6)
5. If  $x / 8 = 1$ , what does  $x$  equal? (8)

## MM 8-63

1. If  $x / 100 = 6$ , what does  $x$  equal? (600)
2.  $28 \times .1 = (2.8)$
3. What is the perimeter of a 5 by 8 foot rectangle? (26 feet)
4. How many hours from 6 a.m. to 4 p.m.? (10 hours)
5.  $6 \times -8 = (-48)$

## MM 8-62

1. Write 75% as a fraction. ( $3/4$ )
2. Round 5.68 to the nearest tenth. (5.7)
3. 7 is what % of 70? (10)
4.  $9/10$  of 100 = (90)
5.  $-6 \times -11 = (66)$

## MM 8-64

1. What is  $1/2$  of 41? (20.5)
2. How many hours from 6 p.m. to 1 a.m.? (7 hours)
3. What is 25% of 20? (5)
4.  $-6 \times -6 = (36)$
5. Write 77% as a fraction. ( $77/100$ )



MM 8-65

1.  $5/6$  of 30 = (25)
2. What is the quotient of 160 and 20? (8)
3. What is the perimeter of a 9 by 8 meter rectangle? (34 meters)
4.  $-8 \times 10 = (-80)$
5. Round .856 to the nearest tenth. (.9)

MM 8-67

1.  $-10 \times -14 = (140)$
2. What is the area of a square whose side is 5 inches? (25 sq. inches)
3. What is 69.8 divided by 100? (.698)
4. What is  $1/4$  of 32? (8)
5.  $6 + (8 / 2 \times 7) = (34)$

MM 8-66

1. What is 20% of 60? (12)
2. What is the area of a square with a side of 9 inches? (81 sq. inches)
3.  $-32 \times -2 = (64)$
4. How many hours from 10 p.m. to 6 a.m.? (8)
5. Write 18% as a fraction. (9/50)

MM 8-68

1.  $-8 \times +6 = (-48)$
2. What is the quotient of 1000 and 20? (50)
3.  $-4 + -9 = (-13)$
4.  $2/3$  of 60 = (40)
5.  $-36 / -9 = (4)$

## MM 8-69

1. What is the perimeter of a 7 by 8 inch rectangle?  
(30 inches)
2. How many hours from 5 p.m. to 6 a.m. (13 hours)
3.  $6 \times -4 = (-24)$
4. Round 8.99 to the nearest tenth. (9.0)
5. What is 80% of 20? (16)

## MM 8-71

1. What is 10% of 1? (.1)
2.  $-9 \times 6 = (-54)$
3.  $-18 / 2 = (-9)$
4. What is the quotient of 86 and 2? (43)
5. What is the area of a square whose side is 9 inches? (81 sq. inches)

## MM 8-70

1.  $2 \frac{1}{2} + 8 \frac{1}{2} = (11)$
2. Write  $12 \frac{1}{2}\%$  as a fraction.  
( $\frac{1}{8}$ ). What is 10% of 2000?  
(200)
4.  $-5 + 8 = (3)$
5. Write  $\frac{1}{8}$  as a decimal.  
(.125)

## MM 8-72

1.  $-9 / -3 = (3)$
2. Round 5.449 to the nearest tenth. (5.5)
3. What is 10% of 6? (.6)
4.  $-6 + -9 = (-15)$
5.  $12 \times -5 = (-60)$

## MM 8-73

1.  $24 \div -8 = (-3)$
2.  $-9 + -9 = (-18)$
3. What is the square of 9?  
(81)
4.  $30 \times 600 = (18000)$
5.  $4^3 = (64)$

## MM 8-75

1. Write  $3/4$  as a decimal.  
(.75)
2. What is three cubed? (27)
3. Write  $87 \frac{1}{2}\%$  as a fraction. ( $7/8$ )
4. What is 200% of 8? (16)
5. What is the area of a square whose side is 20 inches? (80 sq. inches)

## MM 8-74

1.  $-600 \div -3 = (200)$
2. What is 1 to the 10th power? (1)
3. What is 16% of 100? (16)
4. Find the square root of 36.  
(6)
5. What is the quotient of 222 and 2? (111)

## MM 8-76

1. What is  $40 \times 40$ ? (1600)
2.  $62 \frac{1}{2}\%$  is how many eighths? (5)
3. What is the square root of 144? (12)
4.  $-8 + 9 = (1)$
5. What is 48% of 200? (96)

## DMR 8-1

Name \_\_\_\_\_

1. What is the standard numeral for nineteen million, seven hundred thousand?
2. Write the standard numeral for 34 billion, 219 thousand, 416.
3. Round 24,269 to nearest thousand.
4. Round 124,500 to nearest ten thousand.

Use greater than or less than for 5 &amp; 6

5. 216,329    216,319
6. 4,684,621    4,685,941
7. Carlos made \$4.15 on Monday, \$2.87 on Tuesday, and \$16.21 on Wednesday. How much did he make in the three days?

## DMR 8-2

Name \_\_\_\_\_

1. Round 29,586,002 to nearest million.
2. Is  $42,000,216 < \text{or} > 41,986,675$ .
3.  $7 \times (3 + 2)$
4.  $265 + 299$
5.  $(16 \div 4) \times (8 \div 2)$
6. 
$$\begin{array}{r} 5003 \\ - 1659 \\ \hline \end{array}$$
7. Joe had 486 marbles. How many more will he need to have 500?

## DMR 8-3

Name \_\_\_\_\_

1. Round 25,999 to nearest tens.

Put correct or incorrect for Numbers 2-4.

2.  $356 - 142 \times 2 = 72$
3.  $1625 - (526 + 374) = 725$
4.  $2591 - (1250 - 408) = 933$
5. Barry made \$20.00 last week. Sue made \$11.87. How much more had Barry made?
6. Estimate  $19,876 + 13,061$ .
7. Add  $276 + 496 + 1986$ .

## DMR 8-4

Name \_\_\_\_\_

1. 
$$\begin{array}{r} 227 \\ \times 36 \\ \hline \end{array}$$
2. Round 42,418 to nearest thousand.
3.  $7007 - 3648 =$
4.  $6283 + 576 + 3892 + 467$
5. Bob and Mary had \$10.00. If they spent \$4.86 at McDonalds, how much would they have left?
6.  $12,000 \div 6 =$
7.  $30 \times 4,000$

DMR 8-13

Name \_\_\_\_\_

1.  $55 \times 12 =$
2.  $(9 + 9) \div (4 + 2) =$
3.  $8000 - 2987 =$
4. Write the decimal - three hundred fifteen ten-thousandths.
5.  $1260 \div 36 =$
6.  $2/3$  of 48 =
7. Kim bought a \$4.35 blouse, a \$16.20 jacket and a \$4.50 billfold. If she started with \$30.00, how much would she have left?

DMR 8-14

Name \_\_\_\_\_

1. Put the following in order from least to greatest:  
3.468, 3.648, 3.684
2. Write the decimal twelve ten-thousandths.
3. Round .05435 to nearest thousandth.
4. Mary worked 2.8 hours on Monday, 3.9 on Tuesday, and 3.9 on Wednesday. How many hours did she work those three days?
5. Add  $28.4 + 9.83 + 27.66 =$
6.  $\$15.00 - (3.40 \times 2) =$
7.  $48 \times \underline{\hspace{1cm}} = 2,400$

DMR 8-15

Name \_\_\_\_\_

1.  $486 \div 2 =$
2.  $\$63.80 - 27.98 =$
3. Which is greater 5.623 or 563?
4. Write twenty-five ten thousands.
5. Round .006 to the nearest hundredth.
6. What is  $427.8 + 95.26 + 79.4$ ?
7. Joe had three widths of paper. One was .067 inches another .055 inches and the third .097 inches. What is the total width of the three papers?

DMR 8-16

Name \_\_\_\_\_

1. What is  $2.8 + 4.6 + .08 =$
2.  $286 \times 48 =$
3.  $2\frac{1}{2} + 3\frac{1}{2} =$
4. Use  $<$ ,  $>$ , or  $=$  for  
 $\frac{6.00}{6}$
5.  $5.603 - 1.277 =$
6.  $(.5 \times .3) - .1 =$
7. Adult tickets are \$2.50 and children's tickets are \$1.50. One family bought 5 adult tickets and 3 children's tickets. How much did that family spend?

DMR 8-17

Name \_\_\_\_\_

1.  $84 + 184 + 1,084 =$
2. Put the following in order from greatest to least.  
2.86, 2.865, 2.799
3. Write 87 billion, 295 million.
4. In 47,865,921, the 8 means \_\_\_\_\_.
5.  $3,701 \div 43 =$
6.  $3.65 + 9 + 8.05 =$
7. A gallon of paint covers 400 square feet.  
How many gallons of paint are needed to cover a fence 250 feet long and 8 feet high?

DMR 8-19.

Name \_\_\_\_\_

1.  $576.34 + 821.98 =$
2. Round .97 to the nearest tenth.
3.  $5 \times 5 \times 5 \times 5 =$
4.  $12 + 15.5 + 10.75$
5.  $26.55 - (8.48 + 9.35) =$
6.  $56,000 \div 8 =$
7. Sean ran 100 meters in 13.46 seconds.  
Patti ran it in 12.97 seconds.  
How much faster was Patti than Sean?

DMR 8-18.

Name \_\_\_\_\_

1. Estimate the product of  $2774 \times 28$
2.  $(30 \times 40) \div 20 =$
3.  $4,809 \times 6 =$
4.  $4,003 - 1697 =$
5. Write the decimal 17 millionths.
6.  $\$8.19 + \$3.77 + \$5.29 =$
7. The Summer basketball team scored 354 points in the first 6 games. They had three more games to play. If the team scores at the same rate as the first 6 games, what would be their total number of points for the 9 games?

DMR 8-20.

Name \_\_\_\_\_

1.  $3,425 \div 27 =$
2.  $94.33 + 6.72 =$
3. Estimate the difference  $\$31.95 - 27.17$ .
4. Round 12.852 to the underlined place.
5. Use  $<$ ,  $>$ , or  $=$  for the  $\bigcirc$   
in  $0.0910$   $\bigcirc$   $.091$ .
6.  $4\frac{1}{2} - 2\frac{1}{4} =$
7. Joe's time in the first race was 29.65.  
His second time was 30.23. How much faster was his first time?

DMR 8-21

Name \_\_\_\_\_

1.  $7.85 + 9.67 + .008 =$
2.  $3\frac{1}{2} \times 2 = 3\frac{1}{2} \times 2 =$
3.  $18 - 2.659 =$
4.  $3 \times 5 - 5 =$
5.  $(0.2 \times 0.3) \times 0.2 =$
6.  $\frac{3}{4}$  of 32 =
7. A tank holding 14,860 L of water empties at the rate of 40 L each minute. How many minutes will it take to empty the tank?

DMR 8-22

Name \_\_\_\_\_

1.  $2\frac{1}{3} + 3\frac{1}{4} =$
2.  $487 \times 960 \times 0 =$
3.  $8\frac{1}{3} \times 3 =$
4.  $10 \times 46.5 =$
5.  $846 - 2.865 =$
6.  $6,000 \div 15 =$
7. Frank's distance in the long jump on his three jumps were 12.8 m, 11.9 m, and 12.2 m. What was his average jump?

DMR 8-23

DMR 8-23

Name \_\_\_\_\_

1.  $88 \times 900 =$
2.  $7\frac{1}{2} \times 2\frac{3}{4} =$
3.  $.3 \times .3 \times .3 =$
4. Gas is 89.6¢ per gallon. What would 11.5 gallon cost?
5. Round .867 to the nearest tenth.
6.  $55 - .862 =$
7. In a relay race the four boy's times were 58.1, 59.3, 57.5, and 58.0. What was the difference between the slowest and fastest time?

DMR 8-24

Name \_\_\_\_\_

1.  $48 \times 10,000 =$
2.  $46.1 \times 100 =$
3.  $(80 \times 30) \div 40 =$
4.  $5 \div \frac{1}{6} =$
5. Round 2.9995 to the nearest thousandth.
6.  $609.47 - 193.66 =$
7. The Big Star Super Market sold \$4,867,216 worth of food. Next year they expect to sell 5 million dollars. How much more will they need to sell next year?

DMR 8-25

Name \_\_\_\_\_

1. Round 85.76 to the nearest whole number.
2.  $\$15.76 + \$28.93 + \$7.98 + \$6.77 =$
3.  $15 - 4.67 =$
4.  $3\frac{5}{6} + 4\frac{2}{3} =$
5.  $150 - (119.35 - 84.63) =$
6.  $7.9 \times 8.65 =$
7. Mike was in a car race. His time was 46.83 seconds. For every cone that was knocked down, .7 seconds was added to the time. If Mike knocked down 7 cones, what was his total time?

DMR 8-27

Name \_\_\_\_\_

1.  $\begin{array}{r} 4168 \\ -3249 \\ \hline \end{array}$
2.  $8.8 - .08 =$
3. Divide .496 by 62.
4.  $2 \div .2 =$
5. Round 846.83 to nearest whole number.
6.  $2\frac{1}{2} + 3\frac{3}{4} + 5\frac{1}{2} =$
7. Marcia cuts a 42 foot rope in 37 pieces that are each 1.1 foot long. How much extra rope does she have?

DMR 8-26

Name \_\_\_\_\_

1.  $5.14 + .9 + 3 =$
2. Bob bought 3 rolls of paper for 83 cents each. How much money will he get back from a ten-dollar bill.
3.  $8.5 - 3.771 =$
4.  $6\frac{1}{3} - 4\frac{2}{3} =$
5.  $\frac{3}{5}$  of 60 =
6.  $177.6 \div 37 =$
7. A lady earns \$56.40 per day. If she Works 8 hours per day, what is her hourly rate?

DMR 8-28

Name \_\_\_\_\_

1.  $\frac{5}{6}$  of 72 =
2. There are 365 feet of yarn in a skein. If each bookmark needs  $\frac{1}{2}$  foot, how many bookmarks can be made?
3.  $1,430 \div 65 =$
4.  $4,683 + 9,415 + 6,859 =$
5. How much money?  
7 quarters  
7 dimes  
7 nickels
6. Write 7 million, four.
7.  $87.16 \div 3.14$  find the quotient to the nearest tenth.



DMR 8-29

Name \_\_\_\_\_

1.  $36.5 \div 10 =$
2.  $2 \times 2 \times 2 \times 2 \times 2 =$
3.  $6\frac{1}{4} \times 4 =$
4.  $100 \div 1000 =$
5.  $\$3000 \div 10 =$
6.  $.48 \times .7 =$
7. A truck weighs 14,862.8 pounds.  
When the truck is loaded it weighs 26,984.8.  
What did the load weigh?

DMR 8-31

Name \_\_\_\_\_

1. Round  $224.16 \div 80$  to the nearest tenth
2.  $5 \times 5 \times 3 =$
3.  $3^3 =$
4.  $3\frac{1}{3} \times 4\frac{1}{2} =$
5.  $0.25 \times .066 =$
6. Write as a decimal thirty seven thousandths.
7. Each kilogram equals 2.2 lbs. How many pounds does Roxine weigh if she is 50.8 kg?

DMR 8-30

Name \_\_\_\_\_

1.  $\$4,000 - 2986.14 =$
2. 5 cups = \_\_\_\_\_ pints
3.  $10.73 \div 29 =$
4.  $14.2 \times .1 =$
5.  $4\frac{3}{4} \div \frac{1}{4} =$
6.  $486 + 921 + 836 + 812 =$
7. Mary had 56 sheep. If each sheep gave 2.8 pounds of wool, how many pounds of wool would Mary get?

DMR 8-32

Name \_\_\_\_\_

1. 7 quarts equal how many gallons?
2. Joe traveled 10,560 feet. How many miles did he travel?
3.  $.08 \times .08 =$
4.  $12.466 \div 9.5$ . Round to nearest thousandths.
5.  $5^4 =$
6.  $3\frac{1}{3} + \frac{4}{5} =$
7.  $2\frac{1}{6} \div \frac{13}{6} =$

DMR 8-33

Name \_\_\_\_\_

1.  $.5 + .55 + .555 =$
2.  $\frac{5}{7}$  of 84 =
3. 
$$\begin{array}{r} 4,695 \\ -1,887 \\ \hline \end{array}$$
4.  $1^{15} =$
5. Put 36,000 in scientific notation.
6.  $200 \div .2 =$
7. Three adult horses were weighed. Their weight was 818 pounds, 619 pounds and 756 lbs. What was their average weight?

DMR 8-34

Name \_\_\_\_\_

1. It is  $4.3 \times 10^3$  miles to California. It is  $2.6 \times 10^4$  to Alaska. How much farther is Alaska than California?
2.  $5^0 =$
3.  $2,666 \div 2 =$
4.  $(.2)^3 =$
5.  $86 \times 57 =$
6.  $\frac{6}{7} \times 1\frac{3}{4} =$
7. To make a pair of shorts requires  $2\frac{2}{3}$  yards of material. Brian wanted to make 3 pairs. How much material would be left from 9 yards?

DMR 8-35

Name \_\_\_\_\_

1.  $99 \times 47 =$
2.  $44.44 \div .44 =$
3.  $7\frac{1}{8} - 3\frac{2}{3} =$
4.  $10^6 \div 10^2 =$
5.  $8^4 =$
6. What time is 1 hour and forty minutes after 10:36?
7. Bob is working on construction for \$8.86 per hour. He worked 6846 hours in 1985. What was his pay?

DMR 8-36

Name \_\_\_\_\_

1.  $7511 \div 37 =$
2.  $2001 - 235 =$
3. 13 mm = \_\_\_\_\_ cm
4.  $2,000 \times 8 =$
5.  $.09 \times 100 =$
6. 2 lbs. = \_\_\_\_\_ oz.
7. Standard Oil was up  $\frac{7}{8}$  on Tuesday and  $\frac{3}{8}$  on Wednesday. How much did the price increase for the two days?

DMR 8-37

Name \_\_\_\_\_

1.  $3^2 =$
2. Write the decimal for 6 and 5 tenths.
3. Write the decimal for  $1/2$ .
4.  $500 \div 10 =$
5. Round 6.83 to the nearest whole number.
6.  $1,000 = 10$
7. Find the average of 6, 9, 11, 17, and 2.

DMR 8-38

Name \_\_\_\_\_

1.  $400 \times 5 =$
2.  $10^2 \times 10 =$
3.  $6.89 \div 1.3 =$
4. Arrange least to greatest  
1.4, 1.04, .140, .014
5.  $27.4 - 3.7 =$
6.  $5504 \div 42 =$
7. A recipe calls for  $1 \frac{1}{2}$  cups of white flour and  $2 \frac{3}{4}$  cups of whole wheat flour. How much flour is needed in all?

DMR 8-39

Name \_\_\_\_\_

1.  $16 \times 100 =$
2.  $2^3 =$
3.  $9 - 4.5 =$
4. 5 m = \_\_\_\_\_ cm
5. 
$$\begin{array}{r} 4613 \\ - 2895 \\ \hline \end{array}$$
6.  $1,005 \times 17 =$
7. Jim got 3 hits in 10 at bat. What percent of the time did he get hits?

DMR 8-40

Name \_\_\_\_\_

1.  $52 \div 10 =$
2.  $2,000 - 124 =$
3.  $10^5 =$
4.  $1080 \div 120 =$
5.  $3\frac{3}{8} - 2\frac{1}{8} =$
6.  $3 \times 4 \times 5 =$
7. What time is 45 minutes after 10:35?

DMR 8-41

Name \_\_\_\_\_

1.  $25 + 3.4 =$
2.  $900 \times 6 =$
3.  $66.0 \div 15 =$
4. 3 ft. = \_\_\_\_\_ in.
5.  $5 \times 10^2 =$
6. T or F  
5 is a multiple of 20.
7. A wrecking company bought 12 cars for \$36 each and 13 cars for \$30 each. How much was paid for the 25 cars?

DMR 8-42

Name \_\_\_\_\_

1.  $10^3 =$
2.  $7.4 \times 100 =$
3. 80 mm = \_\_\_\_\_ cm
4. T or F:  
3 is a factor of 21?
5.  $378 \div 14 =$
6.  $3\frac{1}{2} + 1\frac{1}{2} =$
7. How much time between 1:45 p.m. and 3:15 p.m.?

DMR 8-43

Name \_\_\_\_\_

1.  $16.9 + 9.1 =$
2.  $70 \times 80 =$
3.  $3.8 \times 5 =$
4. 9 ft. = \_\_\_\_\_ yds.
5. .7 \_\_\_\_\_ .091  
Fill in < or >
6.  $.0396 \div 6 =$
7. A stack of 100 papers is 2.6 cm high. What is the thickness of each sheet?

DMR 8-44

Name \_\_\_\_\_

1.  $256 + 13 + 8 =$
2. .25 \_\_\_\_\_  $\frac{1}{3}$  Write < or >.
3. Write  $\frac{29}{3}$  as a mixed number.
4. Divide \$14 by 8.
5. Find the mode of 8, 2, 3, 5, 2, 6, 9, 2 and 8.
6.  $1.8 \div 9 =$
7. Ed won 12 out of 15 games of chess. What fraction of the games did he lose?

DMR 8-45

Name \_\_\_\_\_

1.  $197 \times 56 =$
2. Estimate  $63,935 \div 98 =$
3.  $26296 \div 4 =$
4.  $60\% = \frac{?}{5}$
5. What is  $\frac{3}{4}$  of 12?
6.  $4.5 \times 11 =$
7. Choose the most sensible answer:  
Mike has finished \_\_\_\_\_ of his book.  
A) 125%  
B)  $\frac{3}{4}$   
C) 2.4

DMR 8-46

Name \_\_\_\_\_

1.  $1,387 - 295 =$
2.  $6408 - 8 =$
3.  $20\% = \underline{1}$
4. What is  $\frac{1}{2}$  of 11?
5.  $3 \times 10^3 =$
6.  $\frac{2}{5} = \frac{?}{100}$
7. Choose the most sensible answer for: Helen sleeps \_\_\_\_\_ of the day.  
A)  $\frac{3}{4}$   
B) 30%  
C) 90%

DMR 8-47

Name \_\_\_\_\_

1.  $2738 \div 9 =$
2. Estimate.  $504 \times 137 =$
3. Estimate.  $6 \times \$7.29 =$
4.  $.08 \times 3 =$
5.  $31 - 2.2 =$
6. Write .6 as a fraction in lowest terms.
7. On a map 1 cm = 13 km. What distance is represented by 8 cm?

DMR 8-48

Name \_\_\_\_\_

1.  $27,000 - 23,461 =$
2.  $302 \times 29 =$
3.  $.82 = \underline{\hspace{1cm}} \%$
4.  $\frac{5}{8} = \frac{?}{40}$
5.  $1.2 \times 1.2 =$
6. Write a decimal for  $\frac{3}{25}$ .
7. Hank gets 22 miles per gallon. How many gallons are needed to drive 594 miles?

## DMR 8-49

Name \_\_\_\_\_

1. Estimate  $821 - 556 =$
2.  $2515 \div 5 =$
3.  $\frac{1}{3} =$  \_\_\_\_\_ %
4. Write six and three hundredths as a decimal.
5.  $\frac{7}{20} = \frac{35}{?}$
6.  $4 \div 8 =$
7. The Tashu Company ships 126 radios a day. If they are packed 6 to a carton, how many cartons are shipped in a 15-day period?

## DMR 8-50

Name \_\_\_\_\_

1.  $40,247 + 163 + 9582 =$
2. Estimate.  $6111 \div 29 =$
3.  $\frac{3}{4} =$  \_\_\_\_\_ %
4. Find the median for 2, 9, 3, 13, 7.
5.  $3x = 15$ ,  $x =$
6. Write an algebraic phrase for 4 less than a number.
7. Eight pounds of shrimp costs \$46. How much is that per pound?

## DMR 8-51

Name \_\_\_\_\_

1. Estimate.  $1597 + 1135 =$
2.  $\frac{3}{4} = \frac{?}{12}$
3.  $52 \times .01 =$
4.  $.9$  \_\_\_\_ 75% Write < or >
5.  $y - 6 = 14$ ,  $y =$  \_\_\_\_\_
6.  $3 + 8 \times 5 =$  \_\_\_\_\_
7. Tina swam 25 laps Monday and 32 laps Tuesday. How many must she average the next three days to reach her goal of 30 laps each day?

## DMR 8-52

Name \_\_\_\_\_

1.  $9 - 3 \times 2 =$
2.  $.3t = 18.6$ ,  $t =$
3. Change  $\frac{3}{4}$  to a decimal.
4.  $14 \cdot 6 = 6 \cdot$  \_\_\_\_\_
5. 1 mile = \_\_\_\_\_ ft.
6. Pick the most reasonable weight for a puppy.
  - a) 53 kg
  - b) 5.3 kg
  - c) .53 kg
7. Tom is to be at a restaurant by 1:00 P.M. He leaves home at 11:50, and arrives 35 min. later. How early is he?

DMR 8-53

Name \_\_\_\_\_

1. Write an algebraic phrase for 4 times your weight.
2. Find the area of a parallelogram with base = 6 in., side = 4 in., and height = 3 in.
3. 750 ml \_\_\_\_\_ 7.5 L, Write  $<$ ,  $>$  or  $=$ .
4. 4:40 p.m. + 3  $\frac{1}{2}$  hours =
5.  $2^3 \times 3^2 =$
6. Is 500,300,001 divisible by 3?
7. How many ways can 24 chairs be arranged in rows that have the same number of chairs?

DMR 8-54

Name \_\_\_\_\_

1.  $35 - 10 + 5 + 8 =$
2.  $\frac{d}{12} = 4$ ,  $d = ?$
3. 27 inches = \_\_\_\_\_ ft \_\_\_\_\_ inches
4. Sketch and label a rectangle with an area of 21 sq. ft.
5.  $5^8 - 5^6 \times 42$  Write  $<$ ,  $>$  or  $=$
6. Round 4.365 to tenths.
7. The ages on Bill's basketball team are 10, 12, 13, 11 and 14. What is the average age of the players?

DMR 8-55

Name \_\_\_\_\_

1. How much is 3 quarters, 6 dimes and 2 nickels worth?
2.  $24 + 12/2 - 3 =$
3.  $21.7 \div 7 =$
4.  $\frac{1}{2}$  of  $3\frac{1}{2} =$
5. Write an algebraic phrase for a number increased by 6.
6. What metric unit is closest to the thickness of a dime?
7. How much fence is needed to enclose a rectangular yard which is 85 ft by 60 ft.

DMR 8-56

Name \_\_\_\_\_

1. Fill in operation symbols to make the expression true.  
 $8 \text{ } \underline{\hspace{1cm}} 4 \text{ } \underline{\hspace{1cm}} 2 \text{ } \underline{\hspace{1cm}} 1 = 30$
2.  $15.9 \div 3 =$
3. Write an algebraic phrase for the product of 3 and n.
4. 2 ft. 7 in. + 3 ft. 9 in. =
5. 4 m = \_\_\_\_\_ cm
6. What is the radius of a circle with a diameter of 6 in.?
7. It takes about 5 seconds for sound to travel 1 miles. If the time between the lightning flash and the sound of thunder is 12 seconds, how far away was the lightning?

DMR 8-57

Name \_\_\_\_\_

1. In  $x + 3 = 7$ , what is the  $x$  called?
2. Write the value of pi correct to 2 decimal places.
3.  $1 + 3 + 5 + 7 = \underline{\hspace{2cm}}^2$
4. Write the prime factorization of 24.
5. The sum of two multiples of 3 is a multiple of 3. T or F.
6.  $5\% \underline{\hspace{1cm}} \frac{1}{8}$ . Write  $<$  or  $>$
7. The odometer of Tim's bike read 483 km when he left home. Now it reads 627 km. How far did he ride?

DMR 8-58

Name \_\_\_\_\_

1.  $14 \times X = 0$ ,  $X =$
2. Write  $\frac{1}{8}$  as a decimal.
3.  $\$75 \div 6 =$
4.  $8y = 25.6$ ,  $y =$
5.  $4T = \underline{\hspace{2cm}}$  lbs.
6.  $.6 \underline{\hspace{1cm}} (.7 \underline{\hspace{1cm}} .3) = 1$ .  
Fill in the correct operation symbols.
7. May leaves for work at 7:30 A.M. She rides the 7:40 bus for 25 minutes, then walks for 5

minutes. At what time does she arrive at work?

DMR 8-59

Name \_\_\_\_\_

1.  $15 - (2 + 4) =$
2.  $n + 27 = 70$ ,  $n =$
3.  $6/5 = \underline{\hspace{2cm}}\%$
4. What is the Greatest Common Factor of 9 and 12?
5.  $6.5 \times 10^3 =$
6. Write  $3 \times 3 \times 3 \times 3$  in exponential form.
7. The Community Theatre has \$170. They wish to make a new curtain, using 15 yds. of material at \$8.50 per yard and a rod, which costs \$39.50. How much will they have left over?

DMR 8-60

Name \_\_\_\_\_

1.  $\frac{5}{6} = \frac{n}{8}$ ,  $n = ?$
2. What is 20% of 30?
3. Round 52.035 to the nearest tenth.
4.  $10^6 =$
5.  $4m = 12.8$
6. How many factors does 12 have?
7. The student council consists of 5 sixth graders, 6 seventh graders, and 9 eighth graders. What percent are eighth graders?



DMR 8-61

Name \_\_\_\_\_

1. Is 27 prime or composite?
2. Write 3800 in scientific notation.
3. Write the Least Common Multiple of 6 and 9.
4.  $3\frac{1}{4} + 2\frac{1}{5} =$
5.  $1\frac{1}{2} \times 4 =$
6.  $62 - 6.2 =$
7. Liz's first lap in a race was 1:42. The total time for the race was 3:18. How long did it take to complete the second lap?

DMR 8-62

Name \_\_\_\_\_

1.  $\frac{1}{3} = \frac{n}{15}$ ,  $n = ?$
2. What is 50% of 80?
3.  $32 - 5.6 =$
4.  $x + 3 = 2x - 2$ ,  $x =$
5. Write the decimal for 26 hundredths.
6.  $\frac{4}{5}$  \_\_\_\_\_ 60%. Write < or >.
7. A math club has 60 members. If 36 are boys, what percent are boys?

DMR 8-63

Name \_\_\_\_\_

1. Is 505,603 divisible by 5?
2.  $3 \div \frac{1}{2} =$
3.  $6\frac{1}{4} - 3\frac{3}{4} =$
4.  $\frac{1}{2}$  \_\_\_\_\_  $\frac{1}{3}$  Write <, > or =.
5.  $\frac{5}{6}$  of 18 =
6. What is an angle less than  $90^\circ$  called?
7. Electricity in New York is 16.5 cents per kw-hr. In Iowa it is about 5.5 cents per kw-hour. How much would \$60 of electricity in Iowa cost in New York?

DMR 8-64

Name \_\_\_\_\_

1. 6 is what percent of 24?
2. What is 1% of \$60?
3.  $n - 7 = 48 - (3 + 5)$ ,  $n =$
4. Write  $3\frac{5}{6}$  as an improper fraction.
5.  $4.6 \times 10^4 =$
6. What is an angle between  $90^\circ$  and  $180^\circ$  called?
7. If socks are selling 3 for \$1.29, find the cost of 7 pair.

DMR 8-65

Name \_\_\_\_\_

1.  $\frac{3}{4} + \frac{3}{4} =$

2.  $2 - 1\frac{1}{8} =$

3.  $4\frac{1}{2} \div 3 =$

4.  $\frac{1}{3}$  of 15 =

5. Name an 8-sided polygon.

6. Write the area formula for a parallelogram.

7. How many quarter pounders can McDonalds make from 60 lbs. of hamburger?

DMR 8-66

Name \_\_\_\_\_

1. What is 10% of \$1.30?

2. 7 is 25% of what number?

3.  $\frac{x}{3} = 6.6$ ,  $x = ?$

4.  $\$153 \div 100 =$

5. Name a polygon with 10 sides.

6.  $4\frac{3}{8} \div 5 =$

7. A pair of tennis shoes regularly selling for \$38 are marked 20% off. What is the sale price?

DMR 8-67

Name \_\_\_\_\_

1.  $\frac{4}{5} + \frac{1}{3} =$

2.  $\frac{3}{8} \times \frac{1}{5} =$

3.  $\frac{3}{4}$  of 20 =

4.  $4\frac{1}{2} \div \frac{1}{2}$  —  $4\frac{1}{2}$ . Write < or >.

5. Name a rectangle with 4 congruent sides.

6.  $4.3 \times 1000 =$

7. Mr. Jones is 36, his son is 6. In four years, how many times as old as his son will Mr. Jones be?

DMR 8-68

Name \_\_\_\_\_

1. What is 10% of \$5.90?

2. 4 is what percent of 12?

3.  $4 + 6 \times 3 - 12 =$

4. 5 cm = \_\_\_\_ mm

5. 5 qts. = \_\_\_\_ gal. \_\_\_\_ qt.

6.  $\begin{array}{r} 9,007 \\ -5,463 \\ \hline \end{array}$

7. A coat costing \$60 is marked down \$15. What is the percent discount

DMR 8-69

Name \_\_\_\_\_

1.  $\frac{3}{8} + \frac{1}{4} =$
2.  $4\frac{1}{5} - 3\frac{4}{5} =$
3.  $\frac{4}{5}$  of 25 =
4. Name a triangle with 3 congruent sides.
5. Perpendicular lines form what angle?
6.  $x \div 100 = 24$
7. If Karen can paint  $1\frac{3}{4}$  chairs in an hour, how long will it take to paint 21 chairs?

DMR 8-71

Name \_\_\_\_\_

1.  $\frac{a}{4} + \frac{1}{8} = \frac{7}{8}$ ,  $a = ?$
2.  $4\frac{5}{6} = 3\frac{?}{6}$
3.  $\frac{9}{10}$  of 30 =
4.  $76 \times 8.7 =$
5. Write  $\frac{32}{7}$  as a mixed number.
6. Write the area formula for a circle.
7. Bill has a bucket containing  $2\frac{1}{4}$  gal. of paint. If he uses  $\frac{1}{3}$  of his paint, how many gallons are left?

DMR 8-70

Name \_\_\_\_\_

1. 7 yd. = \_\_\_\_ ft.
2. 3 ft. 5 in. + 2 ft. 10 in. =
3. 5 kg = \_\_\_\_ g
4.  $121 \div 4$  Express the remainder as a decimal.
5. Write  $\frac{1}{6}$  as a repeating decimal.
6.  $95 = t - 16$ ,  $t =$
7. What is less: 3 for \$15.66 or 7 for \$36.75?

DMR 8-72

Name \_\_\_\_\_

1. .36 \_\_\_\_ 0.306. < or >?
2. What is the ordinal number that comes before 67?
3.  $8,084 - 3,376 =$
4. Round .1964 to the nearest hundredth.
5.  $12 + 15.5 + 10.75 =$
6.  $325 \times .01 =$
7. A relay team has times of: 1.13 min., 1.04 min., 1.05 min and 1.06 min. What is the total time for the team?

DMR 8-73

Name \_\_\_\_\_

1. Estimate the sum of 43.04 and 6.85.
2. Write the numeral for XII.
3.  $7 - .63 =$
4. What is the cost of 4.9 gallons of gas at \$1.19 per gallon? Give answer to the nearest cent.
5.  $1 + 16 \div 4 =$
6. Round to the nearest half hour 4:49 P.M.
7. What time is it 4 hours and 10 minutes before midnight?

DMR 8-74

Name \_\_\_\_\_

1. Write the Roman numeral for 6.
2.  $5.4 \bigcirc 5.39$   $<$ ,  $>$  or  $=$
3.  $13,472 + 6,189 =$
4. Round .0881 to the nearest tenth.
5.  $.0726 + .5 + .426 =$
6.  $\frac{1}{3} + \frac{1}{6} =$
7. Mark bought shoes for \$23.95. Sales tax is 5%. How much change should he get from \$40.

DMR 8-75

Name \_\_\_\_\_

1.  $6 - 1 + 7 =$
2.  $5 \square 8 = 40$
3. Estimate the difference of  $3\frac{7}{8}$  and  $1\frac{1}{3}$
4. 41 g = \_\_\_\_\_ kg
5. Write the numeral for seven dollars and six cents.
6. Rayleen bought items with a total cost of \$4.27. She gave the clerk \$20. How much change should she get?
7.  $78 \times 609 =$

DMR 8-76

Name \_\_\_\_\_

1.  $6 + 9 \bigcirc 3 \times 5$   $<$ ,  $>$ , or  $=$ .
2. Estimate the sum:  $3841 + 2,359 + 4778$ .
3.  $2008 \times 309 =$
4.  $\$38 - 28 \text{ cents} =$
5.  $60.2 \div .28 =$
6.  $.013 \bigcirc .2$   $<$ ,  $>$  or  $=$
7. Postcards at a local museum were \$.49 for 3 cards. How much would 24 cards cost?

DMR 8-77

Name \_\_\_\_\_

1.  $5 \square 7 = 12$
2. Write 13,060,000 in scientific notation.
3.  $253 \times 3000 =$
4. Estimate the quotient of 17.1 and 1.95.
4.  $2 \times 6 + 2 \times 4 =$
6. What combination of coins should Kate use to give 55¢ change?
7. On a 370 seat airplane, 284 seats were taken. How many were not taken?

DMR 8-78

Name \_\_\_\_\_

1. What combination of coins should be used to give 92¢ change?
2.  $63,000 \div 900 =$
3.  $3 \times 2 \bigcirc 45 \div 5$   $>$ ,  $<$  or  $=$
4.  $286 \div 357.5 =$
5.  $\$.73 + \$.06 + \$.30 =$
6. A carton of computer paper weighs 19.5 kg and costs 2.2 cents per sheet. What is the cost of 2,400 sheets of paper?
7.  $3^2 =$

DMR 8-79

Name \_\_\_\_\_

1.  $456 \div 200 =$
2. 7 less than 18 is \_\_\_\_\_
3.  $4 + 7 \bigcirc 4 \times 3$   $>$ ,  $<$ ,  $=$
4.  $2(4 + 3) - 1 =$
5. Write the numeral for six and twenty-eight thousandths.
6. A tank has a capacity of 64,000 gallons and is filled by a pipe at a rate of 256 gallons per minute. How long will it take to fill the tank?
7.  $364 \times 86 =$

DMR 8-80

Name \_\_\_\_\_

1.  $4 \times 9 \bigcirc 6 \times 6$
2.  $59,059 \div 413 =$
3. Round .0048 to the nearest hundredth.
4.  $.001 \times 8.9 =$
5. Discs costs \$1.89 each. For 20 or more the cost is \$1.69 each. What is the cost of one dozen discs?
6.  $10^5 =$
7. Write in standard notation:  
 $3.27 \times 10^5$

DMR 8-81

Name \_\_\_\_\_

1. 4 less than the product of 12 and 3
2. Write  $2.06 \times 10^7$  in standard notation.
3.  $16 \square 9 = 7$
4. Change 1,263 cm to m.
5.  $30 - 5 \times 4 =$
6. Estimate the sum:  $3,841 + 359 + 4,778$
7. Noel measured a cylinder and found its diameter was 5.7561 cm. This was one ten-thousandth larger than it should have been. How large should it have been?

DMR 8-83

Name \_\_\_\_\_

1.  $.83 \bigcirc .8300$   $<$ ,  $>$  or  $=$
2. Write the numeral for twenty-four thousand and twenty-four ten-thousandths.
3. 2 more than the difference of 6 and 4.
4.  $7 + 18 \div 6 =$
5. Round to the nearest quarter hour 11:35.
6.  $42 \square 7 = 6$
7. The total cost of operating a carpool for a year is shared by 4 people. If each person pays \$345, what is the total cost of operating the carpool?

DMR 8-82

Name \_\_\_\_\_

1.  $\frac{2}{3} - \frac{1}{4} =$
2.  $3^5 =$
3. Round .66683 to the nearest whole number.
4.  $8.023 \times .5 =$
5.  $17.4 \div .3 =$
6. What is the prime factorization of 54?
7. A sausage that is about 32.6 cm long is cut into 100 slices. How thick is each slice?

DMR 8-84

Name \_\_\_\_\_

1.  $5.9 \times 3.7 =$
2. Estimate the quotient of 7,942 and 77.
3. There are 425 pages in a book that is 3.2 cm thick. What is the thickness of each page to the nearest thousandth?
4.  $20^2 =$
5.  $1\frac{5}{7} \times 2\frac{1}{3} =$
6. Carolyn bought 2 packs of film for \$3.19 each and another for \$2.15. What was the total cost?
7. Is 51 a prime or composite number?

DMR 8-85

Name \_\_\_\_\_

1. In  $4^7$ , what is the base?
2. Is  $2 \times 3 \times 5 + 1$  a prime number?
3.  $8 + 3 = \underline{\hspace{1cm}} + 8$
4.  $\frac{8^5}{8^2} = 8^?$
5. What is the greatest common factor of 40 and 100?
6. Change  $3\frac{3}{4}$  to an improper fraction.
7. How many  $\frac{3}{8}$  inch links does it take to make a belt  $23\frac{1}{4}$  inches long?

DMR 8-86

Name \_\_\_\_\_

1.  $93.7 \times .0071 =$
2. In  $5^3$  what is the exponent?
3. Give the mixed numeral for  $\frac{121}{5}$
4. What is the greatest common factor of 54 and 60?
5. Adam bought  $\frac{3}{4}$  lb. of potato salad and 10 oz. of coleslaw. Which has the greater amount?
6.  $\frac{9}{15} \bigcirc \frac{18}{30}$   $>, <, =$
7. 215% of 36 =

DMR 8-87

Name \_\_\_\_\_

1. What is the prime factorization of 63?
2.  $10^{15} \div 10^{11} = 10^?$
3.  $2(3 + \underline{\hspace{1cm}}) = 2.3 + 2.4$
4. Give an equivalent fraction with denominator of 60 for  $\frac{3}{5}$ .
5.  $\frac{10}{15} \underline{\hspace{1cm}} \frac{12}{18}$   $>, < \text{ or } =$
6. On a piano 36 of the 88 keys are black. Write this as a fraction in lowest terms.
7. What is the least common denominator for  $\frac{5}{8}$  and  $\frac{7}{12}$ ?

DMR 8-88

Name \_\_\_\_\_

1. An "N" gauge model is  $4\frac{1}{2}$ " long. How many fourths of an inch long is the car?
2. Write these numbers in order from least to greatest: 75.2, 75.02, 70.52, 705.2
3.  $1\frac{1}{2} + 3\frac{3}{8} + 2\frac{5}{6} =$
4. One of these fractions is not in lowest terms. Reduce it.  $\frac{42}{51}, \frac{21}{32}, 10, 33$
5. 29% of 34 =
6.  $11 - 1\frac{1}{4} =$
7. Find the average of 2, 5, 9, 3 and 7.

DMR 8-89

Name \_\_\_\_\_

1. Estimate the sum of 29.26 and 1.345.
2.  $6^3 \times 6^4 = 6^?$
3.  $2 + (3 + 4) = (2 + \underline{\hspace{1cm}}) + 4$
4. .006 cm = \_\_\_\_\_ mm
5. Give the greatest common factor of 51 and 53.
6.  $\frac{4}{5} = \frac{64}{?}$
7. A boat travels 7 hours at a speed of  $10\frac{1}{4}$  knots. How far did it travel?

DMR 8-90

Name \_\_\_\_\_

1. A recipe calls for  $\frac{3}{4}$  cup of milk. How much milk will be needed for a triple recipe?
2.  $2\frac{1}{2} + 3\frac{1}{4} - 1\frac{7}{8} =$
3.  $10,000 \times .01276 =$
4.  $17^0 =$
5. Write 137% as a decimal.
6.  $1\frac{2}{9} \div 3\frac{5}{6} =$
7. What is the largest number that can be written with the digits 1, 2, 5 and 7 using each digit only once?

DMR 8-91

Name \_\_\_\_\_

1. 14 is what % of 70?
2. What is the least common multiple of 6, 15 and 9?
3. What is the prime factorization of 81?
4. Reduce:  $\frac{75}{90}$
5.  $7^5 \times 7^3 \div 7^2 = 7^?$
6. Arrange these in order from greatest to least?  $1\frac{3}{4}$ ,  $1\frac{5}{16}$ ,  $1\frac{3}{8}$ ,  $1\frac{27}{32}$
7. A recipe requires  $3\frac{1}{2}$  cups of flour. Bill has  $1\frac{1}{4}$  cups of flour. How much does he need to borrow from the neighbor?

DMR 8-92

Name \_\_\_\_\_

1. Evaluate  $n - \frac{1}{3}$  when  $n = 2\frac{1}{2}$
2. Write 2.5 as a %.
3.  $\frac{2}{3} \times 1\frac{1}{6} \times 9 =$
4. Mike caught three perch weighing  $1\frac{1}{34}$  lb.,  $2\frac{1}{8}$  lb., and  $1\frac{2}{3}$  lb. What did they weigh together?
5. Write  $4 \cdot 4 \cdot 4 \cdot 4 \cdot 4 \cdot 4 \cdot 4$  with exponents.
6. What power of 10 would you have to multiply .0637 by to make it a whole number?
7. Find the quotient to the nearest hundredth:  
 $51.3 \div 8$



## DMR 8-93

Name \_\_\_\_\_

- $\frac{10^7}{10^4}$
- Estimate the product of 37.15 and 0.75.
- $3\frac{1}{2} - 2\frac{8}{9} =$
- $.18 \div .001 =$
- The best estimate for the length of a car is 1m, 4m, 7m, 10m.
- 54 is 15% of what number?
- Ron plans to sail  $13\frac{1}{2}$  nautical miles in  $3\frac{1}{4}$  hours. At what rate will the boat travel?

## DMR 8-94

Name \_\_\_\_\_

- Write 64% as a fraction.
- $3^4 =$
- If  $a = 7$  and  $b = 2$ , find  $3a - 3b$ .
- $2\frac{1}{2} \times 3\frac{3}{5} =$
- A piece of tubing  $10\frac{1}{2}$  inches long is cut from one that is  $33\frac{1}{4}$  inches long. The saw cut is  $\frac{1}{16}$  inch. How much tubing is left?
- Find the quotient to the nearest tenth:  
 $6.7 \div 6$
- A 5 lb. bag of potatoes cost \$1.05. What is the cost per pound?

## DMR 8-95

Name \_\_\_\_\_

- Estimate the quotient of  $327 \div 48$ .
- What are all the factors of 12?
- Change .012 to a fraction.
- $\frac{15}{\frac{2}{3}} =$
- On a map  $\frac{1}{4}'' = 15$  miles. The distance between two cities is  $2\frac{1}{2}''$ . How many miles apart are they?
- 213% of 21 =
- $x - 7 = 2$   
 $x =$  \_\_\_\_\_

## DMR 8-96

Name \_\_\_\_\_

- Find the perimeter of a 4' by 5' rectangle.
- Round  $3\frac{7}{16}$  to the nearest whole number.
- Jill worked  $7\frac{1}{2}$  hours on Monday and  $8\frac{3}{4}$  hours on Tuesday. How much longer did he work on Tuesday?
- Estimate the product of 32.7 and 8.92.
- What is the prime factorization of 330?
- $1^{15} =$
- $y + 5 = 17$  Solve for y.

DMR 8-97

Name \_\_\_\_\_

1. Write the decimal for  $\frac{5}{6}$ .
2.  $8\frac{1}{3} - 3\frac{5}{6} =$
3. Round .00963 to thousandths place.
4. 16 is 30% of what number.
5. What is the circumference of a circle with diameter of 5”?
6. Frank bought 7 notebooks. The total cost was \$14.63. What was the cost of each notebook?
7. Give the product of 125 and 2000 in scientific notation.

DMR 8-98

Name \_\_\_\_\_

1.  $5^2 \times 2^3 =$
2. Solve for t:  $6t = 42$ .
3.  $37.5 \times 10,000 =$
4. If  $y = 7$  and  $z = 6$ , then  $\frac{2y + z}{5} =$
5.  $4\frac{1}{2} \div 3\frac{3}{8} =$
6. Is 6 a factor of 826?
7. The Bears played 82 games last season. There were h games played at home. What expression represents the number of away games?

DMR 8-99

Name \_\_\_\_\_

1.  $263\frac{3}{8} + 156\frac{2}{3} =$
2.  $2.088 \div .58 =$
3.  $10^6 =$
4. Find the area of a triangle with  $b = 7\text{m}$   $h = 3\text{m}$ .
5.  $3 + 14 \div 2 =$
6.  $46 + x = 63$   
 $x =$  \_\_\_\_\_
7. On Wednesday, ABC stock closed at  $28\frac{5}{8}$ , after a gain of  $1\frac{1}{8}$ . What was its price when it opened that day?

DMR 8-100

Name \_\_\_\_\_

1.  $2.6 \div .006 =$
2.  $\frac{23}{50} = \frac{138}{x}$
3. Change .5% to a fraction.
4. Colleen has  $6\frac{2}{3}$  ft. of rope to be cut into 10 pieces. How long is each piece?
5. Give the reciprocal of  $2\frac{2}{3}$ .
6. Solve for w:  $w + 5.002 = 7$ .
7. Estimate  $\frac{3}{4}$  of \$23.87.

## DMR 8-101

Name \_\_\_\_\_

1. What is the greatest common factor of 54 and 135?
2. 16 is what % of 80?
3. A market sells 6 ears of sweet corn for 85¢. How much would  $1\frac{1}{2}$  dozen ears cost?
4.  $n - \frac{1}{3} = 1\frac{1}{2}$   
n =
5. What is the least common multiple of 8 and 22?
6.  $1.3 \times 10^5 \times 2 \times 10^8 =$
7.  $.\frac{2}{5} = \frac{z}{7.5}$ ,  $z = ?$

## DMR 102

Name \_\_\_\_\_

1. A diagram for a birdhouse is drawn to a scale of 2 to 15. If the height on the diagram is 4.2 cm, what is the actual height?
2.  $\frac{4}{5} - \frac{3}{4} =$
3. Change 150% to a decimal.
4.  $3\frac{3}{4} \div \left(\frac{1}{2} \div \frac{1}{8}\right) =$
5. Write an expression for the quotient of a number y and 6.
6. Find the area of a parallelogram with base 11' and height  $2\frac{3}{4}$ .
7. 124 hours = \_\_\_\_\_ days

## DMR 8-103

Name \_\_\_\_\_

1. The reciprocal of  $2\frac{3}{8}$  is \_\_\_\_\_?
2. Change  $16\frac{2}{3}\%$  to a fraction.
3. Write an expression for the difference when r is subtracted from 20.
4. Write 2,060,000,000 in scientific notation.
5. Flossie did yard work from 9:30 A.M. to 1:30 P.M. and earns \$3.75 an hour. How much did she earn?
6.  $-6 + 5 =$
7.  $2^6 =$

## DMR 8-104

Name \_\_\_\_\_

1. Find the interest on \$400 at 5% for 3 years.
2. If jackets are  $\frac{1}{3}$  off, how much would a \$40 jacket cost.
3. Change  $\frac{11}{18}$  to a decimal.
4.  $z - .7 = 5.2$  Solve for z.
5.  $8 \times \frac{3}{4} =$
6.  $-3 \times 7 =$
7. Use distributive property to write in a different way:  $8 \times 6 + 3 \times 8$ .

DMR 8-107

Name \_\_\_\_\_

- $2\frac{1}{4} - 1\frac{7}{8} =$
- $x - 9 = 6$
- Give the prime numbers from 10-15.
- $3.14 \times 1,000 =$
- $2.32 \div .02 =$
- 7 is what % of 11.8?
- Kevin sold 200 boxes of Christmas cards in 1986. In 1987 he plans to sell 116% of his 1986 sales. What will his 1987 sales be?

DMR 8-108

Name \_\_\_\_\_

- $\left(3\frac{1}{3} + 5\frac{2}{3}\right) \times \frac{1}{3} =$
- $6t = 42$
- What is LCD of  $\frac{3}{4}$  and  $\frac{3}{10}$ ?
- $2.86 \times .05 =$
- $36 \text{ m} = \square \text{ mm}$
- 16% of  $n = 16$
- Mark Smith is buying new tires for his car. The cost is \$264.00. If he buys the tires the last week in June, he will get a discount of 16%. What will be the cost of the tires the last week of June?

DMR 8-109

Name \_\_\_\_\_

- $4 \times 3\frac{3}{4} =$
- $\frac{w}{8} = 13$
- What is the decimal for  $\frac{4}{5}$ ?
- $9.84 \times 6.52 =$
- $.6666 \div .033 =$
- 40% of  $n = 20$
- Santo borrowed \$350 for 2 years. The simple interest rate is 11%. How much interest will be on the loan after two years?

DMR 8-110

Name \_\_\_\_\_

- $\left(\frac{1}{2}\right)^3 =$
- What is the mean of 63, 84, 93?
- 16 is what % of 80?
- The square root of 400 is \_\_\_\_\_
- Put  $\frac{7}{8}$  as a terminating decimal.
- $-88 \div ^{-}2 =$
- A bee is  $\frac{7}{24}$  inches long. A fly is  $\frac{3}{8}$  inches longer. How long is the fly?

DMR 8-111

Name \_\_\_\_\_

1. Put 2,000,000 in scientific relation.
2. What is the area of a circle with a radius of 10 inches?
3.  $4^5 =$
4.  $^{-}16 - (^{-}18)$
5. Find the area of a rectangle whose length is 16.5 cm and width is 7.6 dm. Put the answer in dm.
6.  $2x + 5 = 25$
7. Mike bought  $3\frac{4}{5}$  lbs of apples that cost \$.60 a pound. What would be the cost of the apples?

DMR 8-112

Name \_\_\_\_\_

1. Name an eight-sided figure.
2.  $^{-}4 + ^{-}6 =$
3. The square root of 729 is \_\_\_\_\_
4.  $+22 \times ^{-}1.6 =$
5.  $46.8 \times 9.3 =$
6. What is the area of a triangle whose base is 12 in. and height is 16 in.?
7. Bob worked  $2\frac{3}{4}$  hours on Monday,  $3\frac{4}{5}$  on Tuesday,  $4\frac{3}{4}$  on Wednesday. How many hours must he work the rest of the week to get 30 hours?

DMR 8-113

Name \_\_\_\_\_

1.  $(.2)^4 =$
2. Put 2,300,000 in scientific notation.
3. Change  $12\frac{1}{2}\%$  to a fraction.
4. What is the area of a trapezoid whose bases are 12 in. and 16 in. and height is 14 in.?
5.  $7x - 8 = 76$ .
6.  $2x + 9 = x + 9$ .
7. Mark earns K dollars. If he works 16 hours and gets \$61.12, how much does he make each hour?

DMR 8-114

Name \_\_\_\_\_

1.  $^{-}8 \div ^{-}2 =$
2.  $^{-}8 \times ^{-}72 =$
3. Put 821,000,000 in scientific notation.
4.  $^{-}15 + 8 + ^{-}9 + 16 =$
5. What is the median of 6, 8, 9, 5, 4, 3, 1?
6.  $2^8 =$
7. Kelly subtracted her birth year of 1979 from Mozart's birth year and got -218. What was Mozart's birth year?

DMR 8-115

Name \_\_\_\_\_

1. 40% of  $n =$
2.  $k + 11 = 17$
3.  $\frac{9}{10} \div \frac{1}{5} =$
4.  $.008 \times .02 =$
5. Put  $\frac{1}{9}$  as a repeating decimal.
6. .4% of 200 =
7. A pizza oven temperature is 190 degrees C. How much greater is that temperature than the temperature at which water boils?

DMR 8-117

Name \_\_\_\_\_

1.  $-2 + -8 - (-6) =$
2. 265 is what % of 800?
3. 125% of 280 =
4.  $-12 \times 64 =$
5. What is the mean of 4.6, 2.8, 2.2?
6.  $7\frac{3}{4} + 8\frac{2}{3} =$
7. Out of the 65 men on the team, 26 were college graduates. What percent were not college graduates?

DMR 8-116

Name \_\_\_\_\_

1. Give the circumference of a circle whose radius is 14 m.
2. What is a ten-sided figure called?
3. Put 2,000,100 in scientific notation.
4.  $5^4 =$
5.  $-4 + -8 + -7 =$
6.  $1.6 \times 9.03$
7. Freddy needed to paint the walls of his bedroom. The room is 12 by 12. If the ceiling is 8 foot high, how many square feet needs to be painted?

DMR 8-118

Name \_\_\_\_\_

1. Change  $87\frac{1}{2}\%$  to a fraction.
2.  $4x - 8 = 6x + 20$
3. Put 310,000,000 in scientific notation.
4. What is the mode of the scores: 56, 29, 38, 27, 56, 81?
5. What is the square of 12.2?
6. Put .008 as a percent.
7. If 26 people eat 130 apples, how many people will be needed to eat 2,600 apples?

DMR 8-119

Name \_\_\_\_\_

1.  $.68 \times .09 =$
2. Find the quotient  $567.9 \div 100$ .
3.  $.6\%$  of 980 =
4. Put  $1/6$  as a repeating decimal.
5. What is the mean of  $2\frac{1}{2}$ ,  $3\frac{1}{4}$ , and  $3\frac{1}{4}$ ?
6. Find  $388.9 \div 277$  to nearest tenth.
7. In 1984 there were 8,400 people in Podunk, Iowa. In 1987 there were 120 percent of that amount. How many people were in Podunk in 1987?

DMR 8-120

Name \_\_\_\_\_

1. What is the name of a six-sided figure?
2.  $56 \times .006 =$
3. Put 23,000,000,000 in scientific notation.
4. What is the volume of a rectangular prism whose  $h = 4$  cm  $l = 6$  cm and  $w = 9$  cm
5.  $1 \text{ dm} = \square \text{ km}$
6.  $3^5 =$
7. A basement floor is 6241 square feet. If the room is square, what are the measurements of the room?

DMR 8-121

Name \_\_\_\_\_

1. What is the opposite of 5?
2.  $4y + 4 = 2$ ,  $y =$
3. Square root of 0 =
4. Write a decimal for  $5/6$ .
5.  $5 - 3.62 =$
6. Change  $6\frac{1}{8}$  to an improper fraction.
7. Find the cost of 3 tires if they sell 4 for \$228.72.

DMR 8-122

Name \_\_\_\_\_

1.  $\frac{2}{3}$  of 15 =
2. Name a segment with endpoints on the circle.
3. Write a fraction in lowest terms for  $27/18$ .
4.  $1.6 \div .02 =$
5.  $3^4 =$
6. Write  $37\frac{1}{2}\%$  as a decimal.
7. Find the percent of increase if the cost of a shirt goes from \$5.00 to \$8.00.

DMR 8-123

Name \_\_\_\_\_

1.  $|-3| =$
2.  $5m + 4m = 27$ ,  $m =$
3. Find the square root of 81
4. Round 5,309 to hundreds.
5.  $4(6 + 3) + 5 =$
6.  $5.34 + 72.6 =$
7. How long will it take a snail to move .01 km if its speed is .016 km per hour?

DMR 8-125

Name \_\_\_\_\_

1. Round 621.053 to hundredths
2.  $g/4 = 30$ ,  $g =$
3.  $|-6| \bigcirc | +3|$ , Write  $<$ ,  $>$
4. Write a decimal for  $2/5$ .
5. Find the GCF of 12 and 27.
6.  $\frac{1}{3} + \frac{2}{5} =$
7. If you buy 8 gal. of gas at 98 cents per gallon and 2 qt. of oil at \$1.85 per qt., how much more does the gas cost?

DMR 8-124

Name \_\_\_\_\_

1. Write the name for a  $180^\circ$  angle.
2. Solve for  $x$ :  $\frac{2.4}{x} = 8.3$
3. Find the LCM of 12 and 9
4.  $3x + ^{-}4 = x + 8$ .
5.  $10^6 \div 10^2 =$
6.  $4\frac{1}{4} \div .5 =$
7. David can type 40 words per minute. If a page contains 220 words, how long will it take him to type 5 pages?

DMR 8-126

Name \_\_\_\_\_

1. Estimate the quotient of  $63,582 \div 81$
2. Name the horizontal axis.
3. What is  $4/5$  of 20?
4.  $(^{-}3 + ^{+}5) - 8 =$
5. 6 is 25% of what?
6. Name a triangle with two congruent sides.
7. If you randomly choose one letter from the alphabet, what is the probability that the letter will be a vowel?



DMR 8-127

Name \_\_\_\_\_

1.  $\frac{1}{3} \times 4\frac{1}{2} =$
2. Name an 8-sided polygon.
3. Find the area of a circle with radius 3 inches.
4. Solve for x:  $\frac{x}{3} = \frac{5}{4}$
5. 5 is what % of 20?
6.  $\frac{5}{8} + 1\frac{1}{3} =$
7. John had 8 hits in 30 times at bat. Find his batting average as a decimal to thousandths.

DMR 8-129

Name \_\_\_\_\_

1.  $4 \div \frac{1}{3} =$
2. Write the name for a pair of angles totalling  $180^\circ$ .
3. What is 10% of 90?
4.  $5.3 \times .07 =$
5.  $7 \div 100 =$
6. Use exponents to write the prime factorization of 18.
7. Ann filled a 6 qt. container  $\frac{2}{3}$  full. How many pints are needed to fill the container?

DMR 8-128

Name \_\_\_\_\_

1. Estimate 24% of 41.63
2. Find the length of a square whose area is 64 sq. in.
3. Write the formula for the volume of a cylinder.
4. Write  $>$  or  $<$ :  $3 \bigcirc 2 - 6$ .
5. Why is .333 a rational number?
6.  $\frac{y}{-2} = 6$ ,  $y = ?$
7. Find the total cost of a basketball selling for \$14.50 if 4% sales tax is added.

DMR 8-130

Name \_\_\_\_\_

1. Name a quadrilateral with one pair of sides parallel.
2. Name the upper left quadrant.
3. How many lines of symmetry in an equilateral triangle?
4. Write a number equal to  $3^2 \cdot 5$ .
5. 40 oz. = \_\_\_\_ lbs.
6.  $x - 3 = 4 - 7$ ,  $x =$
7. Find the cost of paving an 80' by 24' drive at \$1.60 per square foot.

DMR 8-131

Name \_\_\_\_\_

1. Write  $\frac{5}{9}$  as a decimal.
2. If  $x = 5$ , find  $3x - 2$
3. Enrollment at the Junior High is decreasing at an average of 3 students per year. The enrollment is 165 students now. What would the enrollment be in 6 years?
4.  $4,760\text{m} = 4.76$  \_\_\_\_\_
5.  $3\frac{1}{2} - 1\frac{7}{8} =$
6.  $1.3 + .6 \times 9 =$
7.  $9^7 \div 9^3 =$

DMR 8-132

Name \_\_\_\_\_

1. An angle of  $90^\circ$  is called a \_\_\_\_\_ angle
2. Find 43% of 605.
3.  $^{-}4 \times 1.36 =$
4. Write an equation to solve this problem:  
Brad had \$40. He bought 4 tickets to the concert and had \$5 left. What was the cost of each ticket?
5. Find the unit price: 251 for \$9.95.
6. How many significant digits in .04306 kg?
7. Write the ordered pair for the point that is up 4 and left 7 from the origin.

DMR 8-133

Name \_\_\_\_\_

1. I thought of an integer and multiplied it by -2 and subtracted -5 from the product. The result was 17. What was my original integer?
2.  $|-3| =$
3. Solve  $2y + 3 = 9$
4. An angle greater than  $90^\circ$  is called \_\_\_\_\_
5.  $^{-}6 \times ^{-}2 \times ^{-}1 =$
6.  $2.63 \times .009 =$
7.  $1\frac{1}{2} \div 4\frac{7}{8} =$

DMR 8-134

Name \_\_\_\_\_

1. Round to hundredths:  $4.2 \div .76$ .
2. Give the complement of a  $47^\circ$  angle.
3. Milk cost 26¢ per quart 5 years ago. Now it costs 43¢ per quart. Find the percent of increase to the nearest whole percent.
4. If  $c = ^{-}12$ , what is  $6 + c/3$ ?
5. Solve  $4/9 = 10/n$
6. What is the GPE for a measurement of  $3\frac{1}{4}$  ?
7. Change  $4\frac{5}{6}$  to a decimal.

DMR 8-135

Name \_\_\_\_\_

1.  $3 - 5 =$
2. Change 8.26 km to m.
3.  $6 - 42 \div 7 =$
4. Write  $\frac{3}{8}$  as a decimal.
5.  $14 \div 0 =$
6. Evaluate  $n + \frac{5}{7}$  when  $n = 12$ .
7. Candy cost \$1.29 per pound. How much will  $1\frac{3}{4}$  pounds cost?

DMR 8-136

Name \_\_\_\_\_

1. How many degrees would there be in  $\frac{1}{3}$  of a circle graph?
2.  $8^3 \times 8^4 =$
3. Two angles of a triangle are measured to be 37 degrees and 45 degrees. How many degrees in the third angle?
4. 16 is what % of 80?
5. How many lines of symmetry does a rectangle have?
6. If you roll a die 48 times, how many times would you expect to roll a prime number?
7. Find the square root of 1,024.

DMR 8-137

Name \_\_\_\_\_

1. 100 cm  $\bigcirc$  10m
2. An angle less than  $90^\circ$  is called \_\_\_\_\_.
3.  $-4.7 \times -4.9 = \square (7 + 9)$
4.  $|4 + 7| =$
5.  $-5g = 75$ . Solve for g.
6.  $1\frac{1}{3} + 2\frac{4}{5} =$
7. If oranges are on sale 6 @ \$1, how much would 2 dozen oranges cost?

DMR 8-138

Name \_\_\_\_\_

1. One of two adjacent supplementary angles has a measure of 126 degrees. What is the other angle?
2.  $-10 - -7 =$
3.  $\frac{n}{16} = \frac{11}{12}$
4. Change  $319/500$  to a percent.
5. Solve  $-7x - 9 = 12$
6. Is a triangle with sides of 30, 34 and 16 a right triangle?
7. Find the simple interest on \$450 at 12% for 3 months.

DMR 8-1	DMR 8-2	DMR 8-3	DMR 8-4
1. 19,700,000	1. 30,000,000	1. 26,000	1. 8172
2. 34,000,219,416	2. >	2. Correct	2. 42,000
3. 24,000	3. 35	3. Correct	3. 3359
4. 120,000	4. 564	4. Incorrect	4. 11,218
5. >	5. 16	5. \$8.13	5. \$5.14
6. <	6. 3344	6. 33,000	6. 2,000
7. \$23.23	7. 14	7. 2758	7. 120,000
DMR 8-5	DMR 8-6	DMR 8-7	DMR 8-8
1. 382	1. 8	1. \$26,000	1. 2196
2. 689	2. 120,000	2. 1440	2. 70
3. 200	3. 184	3. \$1001	3. \$3521
4. 18,000	4. 3000	4. 8	4. 672
5. 13,952	5. 12,080	5. 600	5. 84
6. 1188	6. 1000	6. 85,000	6. 46,000
7. 14	7. 453 chairs	7. 143 students	7. 32 cents
DMR 8-9	DMR 8-10	DMR 8-11	DMR 8-12
1. 135	1. 7500	1. 3648	1. =
2. \$32.20	2. 40,000	2. 7	2. 3.99, 4.0, 4.01, 4.011
3. \$5.27	3. \$7.10	3. 60,000	3. 0
4. 237 r 4	4. 21,200	4. 7.09, 7.99, 8.0, 8.01	4. 0
5. 56 r 20	5. 17.76	5. <	5. 7.6
6. 1886	6. 5000	6. 15.000	6. 4.35
7. 19	7. \$1.62	7. Marci	7. \$2.28
DMR 8-13	DMR 8-14	DMR 8-15	DMR 8-16
1. 660	1. 3.468, 3.648, 3.684	1. 243	1. 7.48
2. 3	2. .0012	2. \$35.82	2. 13,728
3. 5013	3. .054	3. 563	3. 6
4. .0315	4. 10.6	4. .0025	4. =
5. 35	5. 65.89	5. .01	5. 4.326
6. 32	6. 8.20	6. 602.46	6. .05
7. \$4.95	7. 50	7. .219	7. \$17.00
DMR 8-17	DMR 8-18	DMR 8-19	DMR 8-20
1. 1352	1. 90,000	1. 1398.32	1. 126 r 23
2. 2.865, 2.86, 2.799	2. 60	2. 1.0	2. 101.05
3. 87,295,000,000	3. 28,854	3. 625	3. \$5
4. hundred thousand	4. 2306	4. 38.25	4. 12.9
5. 86 r 7	5. .000017	5. 8.72	5. =
6. 20.70	6. \$17.25	6. 7000	6. 2 1/4
7. 5 gallons	7. 531 points	7. .49 seconds	7. .58

DMR 8-21	DMR 8-22	DMR 8-23	DMR 8-24
1. 17.528	1. 5 7/12	1. 79,200	1. 480,000
2. 7	2. 0	2. 4 3/4	2. 4610
3. 15.341	3. 25	3. .027	3. 60
4. 10	4. 465	4. \$10.30	4. 30
5. .012	5. 843.135	5. .9	5. 3.000
6. 24	6. 400	6. 54.138	6. 415.81
7. 371.5	7. 12.3	7. 1.8	7. \$132,784
DMR 8-25	DMR 8-26	DMR 8-27	DMR 8-28
1. 86	1. 9.04	1. 919	1. 60
2. 59.44	2. \$7.51	2. 8.72	2. 730
3. 10.33	3. 4.729	3. .008	3. 22
4. 8 1/2	4. 1 2/3	4. 10	4. 20,957
5. 115.28	5. 36	5. 847	5. \$2.80
6. 68.335	6. 4.8	6. 11 3/4	6. 7,000,004
7. 51.73	7. \$7.05	7. 1.3 feet	7. 27.8
DMR 8-29	DMR 8-30	DMR 8-31	DMR 8-32
1. 3.65	1. 1013.86	1. 2.8	1. 1 3/4
2. 32	2. 2 1/2	2. 75	2. 2
3. 25	3. .37	3. 27	3. .0064
4. .1	4. 1.42	4. 15	4. 1.312
5. \$300	5. 19	5. .0165	5. 625
6. .336	6. 3055	6. .037	6. 8 2/15
7. 12,122 pounds	7. 156.8	7. 111.76	7. 1
DMR 8-33	DMR 8-34	DMR 8-35	DMR 8-36
1. 1.605	1. 21,700	1. 4653	1. 203
2. 60	2. 1	2. 101	2. 1766
3. 2808	3. 1,333	3. 3 11/24	3. 1.3
4. 1	4. .008	4. $10^4$	4. 16,000
5. $3.6 \times 10^4$	5. 4902	5. 4096	5. 9
6. 1000	6. 1 1/2	6. 12:16	6. 32 oz.
7. 731 pounds	7. 1 yard	7. \$60,655.56	7. 1 1/4
DMR 8-37	DMR 8-38	DMR 8-39	DMR 8-40
1. 9	1. 2000	1. 1600	1. 5.2
2. 6.5	2. $10^3$ or 1000	2. 8	2. 1,876
3. .5	3. .5.3	3. 4.5	3. 100,000
4. 50	4. .014; .140; 1.04; 1.40	4. 500 cm	4. 9
5. 7	5. 23.7	5. 1718	5. 1 1/4
6. 3	6. 131 r 2	6. 17,085	6. 60
7. 9	7. 4 1/4 c	7. 30%	7. 11:20

DMR 8-41	DMR 8-42	DMR 8-43	DMR 8-44
1. 28.4	1. 1000	1. 26	1. 277
2. 5400	2. 740	2. 5600	2. <
3. 4.4	3. 8	3. 19	3. $9\frac{2}{3}$
4. 36 in.	4. T	4. 3 yds.	4. \$1.75
5. 500	5. 27	5. >	5. 2
6. F	6. 5	6. .0066	6. .2
7. \$822	7. $1\frac{1}{2}$ hours	7. .026 cm	7. $\frac{1}{5}$
DMR 8-45	DMR 8-46	DMR 8-47	DMR 8-48
1. 11,032	1. 1092	1. $304\frac{2}{9}$	1. 3539
2. 600	2. 801	2. 50,000	2. 8,758
3. 6574	3. 5	3. \$42	3. 82%
4. 3	4. $5\frac{1}{2}$	4. .24	4. 25
5. 9	5. 3000	5. 28.8	5. 1.44
6. 49.5	6. 40	6. $\frac{3}{5}$	6. .12
7. b	7. b	7. 104 km	7. 27 gal.
DMR 8-49	DMR 8-50	DMR 8-51	DMR 8-52
1. 200	1. 49,992	1. 3000	1. 3
2. 503	2. 200	2. 9	2. 62
3. $33\frac{1}{3}\%$	3. 75%	3. .52	3. .75
4. 6.03	4. 7	4.	4. 14
5. 100	5. $x = 5$	5. 20	5. 5,280
6. $\frac{1}{2}$	6. $n - 4$	6. 43	6. b
7. 315 cartons	7. \$5.75	7. 31 laps	7. 35 min.
DMR 8-53	DMR 8-54	DMR 8-55	DMR 8-56
1. 4w	1. 38	1. \$1.45	1. $x, -, x$
2. $18\text{ in.}^2$	2. 48	2. 27	2. 5.3
3. <	3. 2 ft. 3 in.	3. 3.1	3. 3n
4. 8:10 p.m.	4. $3 \times 7\ 21 \times 1\text{ ft.}$	4. $1\frac{3}{4}$	4. 6 ft. 4 in.
5. 72	5.	5. $x + 6$	5. 400
6. Yes	6. 4.4	6. 1 mm	6. 3 in.
7. 8 ways	7. 12	7. 290 ft.	7. $2\frac{2}{5}$ miles
DMR 8-57	DMR 8-58	DMR 8-59	DMR 8-60
1. Variable	1. 0	1. 9	1. $6\frac{2}{3}$
2. 3.14	2. .125	2. 43	2. 6
3. 4	3. \$12.50	3. 125%	3. 52.0
4. $2 \times 2 \times 2 \times 3$	4. 3.2	4. 3	4. 1,000,000
5. 1	5. 8000	5. 6,500	5. $m - 3.2$
6. <	6. + ; -	6. 34	6. 6
7. 144 km	7. 8:10 a.m.	7. \$3	7. 45%

DMR 8-61	DMR 8-62	DMR 8-63	DMR 8-64
1. Composite	1. 5	1. No	1. 25%
2. $3.8 \times 10^3$	2. 40	2. 6	2. \$.60
3. 18	3. 26.4	3. $2\frac{1}{2}$	3. 47
4. $5\frac{9}{20}$	4. 5	4.	4. $\frac{23}{6}$
5. 6	5. .26	5. 15	5. 46,000
6. 55.8	6. >	6. Acute	6. Obtuse
7. 1:36	7. 60%	7. \$180	7. \$3.01
DMR 8-65	DMR 8-66	DMR 8-67	DMR 8-68
1. $1\frac{1}{2}$	1. \$.13	1. $1\frac{2}{15}$	1. \$.59
2. $\frac{7}{8}$	2. 28	2. $\frac{3}{40}$	2. $33\frac{1}{3}\%$
3. $1\frac{1}{2}$	3. 19.8	3. 15	3. 10
4. 5	4. \$1.53	4. >	4. 50
5. Octagon	5. Decagon	5. square	5. 1 gal. 1 qt.
6. $A = b \times h$	6. $\frac{7}{8}$	6. 4,300	6. 3544
7. 240	7. \$30.40	7. 4	7. 25%
DMR 8-69	DMR 8-70	DMR 8-71	DMR 8-72
1. $\frac{5}{8}$	1. 21 ft.	1. 3	1. >
2. $\frac{2}{5}$	2. 6 ft. 3 in.	2. 11	2. sixty-sixth
3. 20	3. 5000	3. 27	3. 4,708
4. Equilateral	4. 30.25	4. 661.2	4. .20
5. $90^\circ$ (or right)	5. .16	5. $4\frac{5}{7}$	5. 38.25
6. 2400	6. 111	6. 6.	6. 3.25
7. 12 hours	7. 3 for \$15.66	7. $1\frac{1}{2}$ gal.	7. 4.28 min.
DMR 8-73	DMR 8-74	DMR 8-75	DMR 8-76
1. 50	1. VI	1. 12	1. =
2. 12	2. >	2. X	2. 11,000
3. 6.37	3. 19,661	3. 3	3. 620,472
4. \$5.83	4. .1	4. .041	4. \$37.72
5. 5	5. .9986	5. \$7.06	5. 215
6. 5:00 P.M.	6. $\frac{1}{2}$	6. \$15.73	6. <
7. 7:50 P.M.	7. \$14.85	7. 47,502	7. \$3.92
DMR 8-77	DMR 8-78	DMR 8-79	DMR 8-80
1. +	1. 3 quarters, 1 dime, 1 nickel, 2 pennies	1. 2.28	1. =
2. $1.306 \times 10^7$	2. 70	2. 11	2. 143
3. 759,000	3. <	3. <	3. .00
4. 8.5	4. .8	4. 13	4. .0089
5. 20	5. \$1.09	5. 6.028	5. \$22.68
6. 2 quarter, 1 nickel	6. \$52.80	6. 250 min. or 4 hrs. 10 min.	6. 100,000
7. 86 seats	7. 9	7. 31,304	7. 327,000

DMR 8-81	DMR 8-82	DMR 8-83	DMR 8-84
1. 32	1. $5/12$	1. =	1. 21.83
2. 20,600,000	2. 243	2. 24,000.0024	2. 100
3. -	3. 1	3. 4	3. .008 cm
4. 12.63	4. 4.0115	4. 10	4. 400
5. 10	5. 58	5. 11:30	5. 4
6. 9,000	6. $2 \times 3^3$	6. $\div$	6. \$8.53
7. 5.756	7. .326 cm	7. \$1380	7. composite 3 x 17
DMR 8-85	DMR 8-86	DMR 8-87	DMR 8-88
1. 4	1. .66527	1. $3^2 \times 7$	1. 18
2. Yes	2. 3	2. 4	2. 70.52, 75.02, 75.2, 705.2
3. 3	3. $24 \frac{1}{5}$	3. 4	3. $7 \frac{17}{24}$
4. 3	4. 6	4. $36/60$	4. $14/17$
5. 20	5. potato salad	5. =	5. 9.86
6. $15/4$	6. =	6. $9/22$	6. $9 \frac{3}{4}$
7. 62 links	7. 77.4	7. 24	7. 5.2
DMR 8-89	DMR 8-90	DMR 8-91	DMR 8-92
1. 30	1. $2 \frac{1}{4} c$	1. 20%	1. $2 \frac{1}{6}$
2. 7	2. $3 \frac{7}{8}$	2. 90	2. 250%
3. 3	3. 127.6	3. $3^4$	3. 7
4. .06	4. 1	4. $5/6$	4. $5 \frac{13}{24} lb.$
5. 1	5. 1.37	5. 6	5. $4^7$
6. 80	6. $22/69$	6. $1 \frac{27}{32}, 1 \frac{3}{4}$	6. 4
7. $71 \frac{3}{4}$ nautical miles	7. 7,521	1 $\frac{3}{8}, 1 \frac{5}{16}$	7. 6.41
DMR 8-93	DMR 8-94	DMR 8-95	DMR 8-96
1. $10^3$	1. $16/25$	1. 6	1. 18'
2. 32	2. 81	2. 1, 2, 3, 4, 6, 12	2. 3
3. $11/18$	3. 15	3. $3/250$	3. $1 \frac{1}{4} hrs.$
4. .00018	4. 9	4. $22 \frac{1}{2}$	4. 270
5. 4m	5. $22 \frac{11}{16}''$	5. 150 miles	5. $2 \times 3 \times 5 \times 11$
6. 360	6. 1.1	6. 44.73	6. 1
7. $4 \frac{2}{13}$ knots	7. 21 cents	7. 9	7. $y = 12$



DMR 8-97	DMR 8-98	DMR 8-99	DMR 8-100
1. .83	1. 200	1. 420 1/24	1. 433.3
2. 4 1/2	2. $t = 7$	2. 3.6	2. 300
3. .010	3. 375,000	3. 1,000,000	3. 1/200
4. 53.3	4. 4	4. $10.5 \text{ m}^2$	4. 2/3 ft.
5. 15.7 in.	5. $1 \frac{1}{3}$	5. 10	5. 3/8
6. \$2.09	6. no	6. $x = 17$	6. 1.998
7. $2.5 \times 10^5$	7. $82 - h$	7. $27 \frac{1}{2}$	7. 18
DMR 8-101	DMR 8-102	DMR 8-103	DMR 8-104
1. 27	1. 31.5 cm	1. 8/19	1. \$60
2. 20%	2. 1/20	2. 1/6	2. \$26.67
3. \$2.55	3. 1.5	3. $20 - r$	3. .61
4. $1 \frac{5}{6}$	4. 3/16	4. $2.06 \times 10^9$	5. $z = 5.9$
5. 88	5. $y/6$	5. \$15.00	6. 6
6. $2.6 \times 10^{13}$	6. 30 1/4"	6. -1	6. -21
7. .3	7. $5 \frac{1}{6}$ days	7. 64	7. $8(6 + 3)$
DMR 8-107	DMR 8-108	DMR 8-109	DMR 8-110
1. 3/8	1. 3	1. 15	1. 1/8
2. 15	2. 7	2. 104	2. 80
3. 11, 13	3. 20	3. .8	3. 20
4. 3140	4. .143	4. 64.1568	4. 20
5. 116	5. 36,000	5. 20.2	5. .875
6. 59%	6. 100	6. 50	6. 440
7. 232	7. 221.76	7. \$77	7. 2/3 in.
DMR 8-111	DMR 8-112	DMR 8-113	DMR 8-114
1. $2 \times 10^6$	1. octagon	1. .0016	1. 40
2. 314 in.	2. -10	2. $2.3 \times 10^6$	2. 576
3. 1024	3. 27	3. 1/8	3. $8.21 \times 10^8$
4. 2	4. -35.2	4. 196 sq. in.	4. 0
5. 12.54 dm	5. 435.24	5. 12	5. 5
6. 10	6. 96 sq.in.	6. 0	6. 256
7. \$2.28	7. $18 \frac{7}{10}$	7. 3.82	7. 1761
DMR 8-115	DMR 8-116 *****117	DMR 8-118	DMR 8-119
1. 1000	1. 87.92 m	1. 7/8	1. .0612
2. 6	2. decagon	2. -14	2. 5.679
3. $4 \frac{1}{2}$	3. $2.001 \times 10^6$	3. $3.1 \times 10^8$	3. 5.88
4. .00016	4. 625	4. 56	4. .16
5. .T	5. -19	5. 148.84	5. 3
6. .8	6. 14.448	6. .8%	6. 1.4
7. 90 degrees Celsius	7. $384 \text{ ft.}^2$	7. 520	7. 10,080 people

DMR 8-120	DMR 8-121	DMR 8-122	DMR 8-123
1. hexagon	1. +5	1. 10	1. 3
2. .336	2. $y = 1/2$	2. chord	2. 3
3. $2.3 \times 10^{10}$	3. 0	3. $3/2$	3. 9
4. 216 cubic cm	4. .833	4. 80	4. 5,300
5. .01 km	5. 1.38	5. 81	5. 41
6. 243	6. $49/8$	6. .375	6. 77.94
7. 79 by 79	7. \$171.54	7. 60%	7. .625 hrs. or 37.5 min
DMR 8-124	DMR 8-125	DMR 8-126	DMR 8-127
1. straight	1. 621.05	1. 800	1. $1 \frac{1}{2}$
2. .9	2. 120	2. x-axis	2. octagon
3. 36	3. >	3. 16	3. $28.26 \text{ in.}^2$
4. $x = 6$	4. .4	4. -6	4. $3 \frac{3}{4}$
5. $10^4$	5. 3	5. 24	5. 25%
6. $8 \frac{1}{2}$ or 8.5	6. $11/15$	6. isosceles	6. $1 \frac{23}{24}$
7. $27 \frac{1}{2}$ minutes	7. \$4.14	7. $5/26$	7. .267
DMR 8-128	DMR 8-129	DMR 8-130	DMR 8-131
1. 10	1. 12	1. trapezoid	1. .5
2. 8 in.	2. supplementary	2. II	2. 13
3. $\pi r^2 h$	3. 9	3. 3	3. 147 students
4. <	4. .371	4. 45	4. km
5. Because it can be written as the ratio $1/3$ .	5. .07	5. $2 \frac{1}{2}$ lbs.	5. $1 \frac{5}{8}$
6. -12	6. $2 \times 3^2$	6. 6	6. 67
7. \$15.08	7. 4 pts.	7. \$3072	7. $9^4$
DMR 8-132	DMR 8-133	DMR 8-134	DMR 8-135
1. right	1. -6	1. 5.53	1. 8
2. 260.15	2. 3	2. $43^\circ$	2. 8,260
3. 5.44	3. 3	3. 65%	3. 0
4. $40 - 4x = 5$	4. obtuse	4. 2	4. .375
5. \$3.98/L	5. 12	5. 22.5	5. undefined
6. 4	6. .02367	6. $1/8''$	6. 1
7. (-7, 4)	7. $4/13$	7. 4.83	7. \$2.26

DMR 8-136

1.  $120^\circ$
2.  $8^7$
3.  $98^\circ$
4. 20%
5. 2
6. 24 times
7. 32

DMR 8-137

1.  $<$
2. acute
3.  $^4$
4. 11
5.  $^{15}$
6.  $4\frac{2}{15}$
7. \$4

DMR 8-138

1.  $54^\circ$
2.  $^3$
3. 14.6
4. 63.8%
5.  $^3$
6. yes
7. \$13.50

\*\*\*\*DMR 8-117

1. -4
2. 32%
3. 350
4.  $^{768}$
5. 3.2
6.  $16\frac{5}{12}$
7. 60%

## VI. Teacher Resource Websites

## **Helpful sites:**

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**E2T2 Teacher Resource site:**

<http://www.aeall.k12.ia.us/E2T2/teachcorner.html>

**Meaningful Instructional Tasks**

**Mental Math** – Daily Mental Math problems (Grades 1-8)

**Daily Math Reviews** (Grades K-7)

**Mental Math Grade 7**

<http://www.aeall.k12.ia.us/E2T2/pdf/MM%207.pdf>

**Daily Math Reviews (Grades 6-8)**

<http://www.aeall.k12.ia.us/E2T2/dmr.html>

Grades 7-12

<http://www.classzone.com/cz/index.htm>

**Practice, Practice, Practice** – online practice problems, Problem of the week

**Help with Math** - Extra Practice, Power Points, Graphing Calculator keystrokes

**Games and Activities** – vocabulary flip cards, vocabulary crosswords

**Quick Reference** - Formulas, Web Projects, Parents as Partners

**Assessment** – interactive session quizzes, chapter tests